



CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

THIRTY-SEVENTH

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

ON THE

Sanitary Condition of the City,

WITH

TABULAR RETURNS

OF THE

SICKNESS AND MORTALITY

DURING THE YEAR 1909.

Newcastle-upon-Tyne:

EASEY & BEST, PRINTERS, 142, PILGRIM STREET.

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WITH THE COMPLIMENTS OF THE
MEDICAL OFFICER OF HEALTH.



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TO ALD. SIR HENRY W. NEWTON, J.P., L.F.P.S., CHAIRMAN OF
THE SANITARY COMMITTEE OF THE CORPORATION OF NEW-
CASTLE-UPON-TYNE.

SIR,

Herewith I beg to submit to you my Thirty-Seventh Annual Report, viz., that for the year 1909.

The *Death-rate* (uncorrected) of Newcastle from "All Causes" during the year was 15·9 per 1,000 population, being the lowest on record. (See page 14.) Details as to the general mortality in the different Registration Sub-districts will be found on pages 80-83. The Death-rate (uncorrected) from the seven "Chief Zymotic Diseases," *i.e.*, Smallpox, Measles, Scarlet Fever, Diphtheria and Membranous Croup, Whooping Cough, "Fever," and Diarrhœa* in Newcastle was 1·2 per 1,000 population, against a corresponding rate of 1·4 for the 76 largest English towns. (See page 85.)

Marriages (see page 16). In the year ended 31st March, 1909, 1,991 marriages were registered in the Registration District of Newcastle-upon-Tyne (which includes the sub-district of Benwell and Fenham, but not that of Walker), a decrease of 27 compared with the number (2,018) during the previous twelve months. The return for the year under report is the lowest recorded during the past thirteen years.

Zymotic Diseases caused 343 deaths, against 367 in the previous year. The most prominent of these diseases were Measles and Whooping Cough, from which 112 and 70 deaths occurred respectively, against 30 and 131 in the previous year. (See page 15).

Diarrhœa in its various forms caused only 50 deaths, as compared with 145 during the previous year. This result was

* Dysentery, Epidemic and Zymotic Enteritis, and Intestinal Catarrh included.

probably due to the low summer temperature, and other atmospheric conditions unfavourable to organic decomposition, and the development of flies.

The number of deaths from *Scarlet Fever* was 34 against 10 in the previous year. The mortality from that disease per cent. to cases notified was 4·0, as compared with a rate of 2·5 for the year 1908. 844 cases of Scarlet Fever were notified, an increase of 450 on the returns of the year before.

Enteric (or Typhoid) Fever caused 19 deaths, against 14 in the previous year. The rate of mortality to cases notified was 25·7 per cent. as compared with 12·6 in the year 1908. The number of cases notified (74) shews a decrease of 37 on the previous year's return.

Diphtheria and Membranous Croup caused 58 deaths, an increase of 22 on the previous year's return. The rate of mortality to cases was 12·7 per cent. as against 10·7 in the previous year. The total number of cases notified (456) shews an increase of 121 as compared with that of the previous year.

Epidemic Cerebro Spinal Meningitis.—Particulars of the occurrence of Epidemic Cerebro Spinal Fever, which extended from March to December, are given on pages 20-22.

It is desirable that the notification of this disease (which was temporarily adopted during the occurrence of the cases) should be made permanent.

Typhus.—Details of a small localized outbreak of Typhus, toward the end of the year, are given on page 23. The preventive measures taken by the Health Department were in the highest degree effective, and serve to shew the protective value to the community of such action when applied with promptitude, energy, and thoroughness.

Infant Mortality.—The deaths of infants under one year of age (940) shew a decrease of 229 on the returns for the previous year, and represent a rate of 122 deaths per 1000 births. This notable decrease is largely due to the coldness of the summer, together with the reduction in numbers of house and other flies, and the consequent absence of diarrhœa, and also, without doubt, to the unremitting attention of the Superintendent of Midwives and the two Health visitors who continue in office. See page 84.

Hospital for Infectious Diseases.—1090 patients were admitted to the City Hospital for Infectious Diseases at Walker Gate. This number is by far the largest on record. The next highest is 667 for the year 1906. The proportion of patients removed to Hospital was 77·6 per cent. of the cases notified (excluding Puerperal Fever and Erysipelas). The mortality to cases was 7·4 per cent. Details are given on pages 25-28.

Smallpox and Isolation Hospitals.—As no case of Smallpox occurred during the year, these premises were, as on former occasions, used for the reception of Scarlet Fever convalescents, &c. See page 29.

The number of *cases of Infectious Diseases notified* by medical practitioners (see page 17) was 1,584, against 996 the previous year.

Phthisis.—The number of cases of Phthisis in poor persons, notified during the year, under the Public Health (Tuberculosis) Regulations 1908, is stated on page 23.

The extension of the Notification of Consumption to cases in all classes of society, is greatly to be desired.

The particulars of work done in connection with the Notification of Births Act, 1907, and under the Midwives' Act, 1902, are given in the Report of the Superintendent of Midwives (Miss E. Renaud), on pages 30 to 34.

Health Visitors.—For purely financial reasons, it was found necessary to discharge the four Health Visitors. This step has entailed a considerable loss of efficiency to the Department. For details see pages 35 and 36.

The *Uncertified Deaths* registered are 11, against 14 in the preceding year.

Customs and Inland Revenue Act, 1890, s. 26 (2).

One application for a certificate respecting five houses, entitling the owner to exemption from inhabited house duty, was made during the year. The certificate was not granted.

*Insanitary Dwellings dealt with under the
Newcastle Improvement Act, 1888, sec. 32.*

A total of 106 houses, comprising 146 holdings, including several Cellar Dwellings, have been dealt with during the year. For details see page 77.

BACTERIAL EXAMINATIONS.

The Report of the Bacteriologist (Prof. H. J. Hutchens) is given on page 38.

TUBERCULOUS COWS' MILK SOLD IN NEWCASTLE.

During the year under report samples of milk purchased in course of delivery or at dairies in the city, and produced at farms in the undermentioned localities, have been found, on bacterial examination, to contain Tubercle Bacilli, viz. :—

Identifica-
tion No.

267. North Wylam.—Clinical examination failed to show any diseased animal. The tuberculin test was not applied.

Stocksfield.—Four cows found clinically affected were to be removed from the herd.

274. Brampton.—No clinical signs of tuberculosis found by veterinary surgeon.

271. North Wylam.—Mr. Parker, Veterinary Officer, went out. 25 cows, one of which showed clinical signs of tuber-

Identifica-
tion No.

culosis of udder and lungs. Another in early stage of tuberculosis. Farmer promised not to sell the milk of these cows.

273. Benwell.—Bad case. Mr. Parker examined and found one cow severely affected. Removal from herd agreed to.

275. Ebchester.—No information received in response to inquiry.

276. Cumberland.—Farmer agreed to stop supply pending tuberculin test. 6 cows were found by Veterinary Inspector of Carlisle to have diseased udders, of which 5 reacted to the tuberculin test, and were removed from the herd.

278.—Fenham.—Mr. Parker, Veterinary Officer found that a cow with diseased udder had been removed from the herd after the taking of the milk sample in question. The other cows were apparently healthy.

285. Ovingham.—Clinical examination by a veterinary surgeon showed 2 cows affected with tuberculosis. Farmer promised not to send milk from these cows to Newcastle.

292. Ponteland.—Clinically examined and reported in good health. 17 cows and 1 bull were tested with Tuberculin. 3 cows reacted, of which 2 were the fattest in the herd. The owner removed the reactors to a separate shed, and undertook to disinfect the infected cowbyres.

36. Brampton Junction.—Herd clinically examined, and 1 cow, found tuberculous, was removed from the herd.

48. Quebec (County Durham).—After some trouble, the cows were examined clinically by the Durham County Veterinary Inspector. One cow suspected to be affected with tuberculosis. The farmer declined to go to the expense of having this cow's milk specially examined. There were 17 cows in the byre—the milk of which was

at the time being sent to Newcastle. On the advice of the Medical Officer of Health of Newcastle, the retailers in Newcastle stopped the supply until satisfied by the application of the tuberculin test that there were no tuberculous animals in the herd. The test was eventually applied, when 9 out of 14 cows reacted. The farmer undertook that no milk from the reactors should be sold.

In the above instance the first identification of the disease by guinea pig inoculation occupied seven weeks, during all of which time the consumers of the milk from the farm were being exposed to infection. A further fortnight was wasted in fruitless endeavour to get the farmer to take action. The tuberculin test was not at first agreed to. During this latter period, and subsequently, it is not impossible that the milk may have been sold to another retailer in Newcastle.

51. Hexham.—The County Medical Officer of Health, on inquiry, learnt that a cow in the herd had been found with tuberculosis shortly after the sample of milk was taken, and was destroyed. No information received as to further examination.

In the enquiry into the foregoing cases, the Medical Officer of Health of the City has been greatly indebted to the respective county and local Medical Officers of Health and Veterinary Inspectors for their courteous and valuable assistance.

The preceding examples shew some only of the difficulties met with in attempting to deal with the very serious danger of tuberculous milk sent for sale in the city. Dairy farmers aver that no less than 50 per cent. of their stock are tuberculous. This idea, whether justified or not (and the writer is of opinion that it is exaggerated), may, and doubtless does, account for the unwillingness of the stock-owners to have the

tuberculin test applied to their cattle, on account of the heavy loss to which the anticipated result might subject them.

On April 5th a deputation from the Northumberland and Durham Dairy Farmers' Association interviewed the Sanitary Committee on the question of the milk supply to the city and the action of the Corporation on the matter. A report of their statements and the reply of the Committee thereto is given in Appendix B. This reply did not satisfy the dairy farmers, as is shewn by the comments thereon which they published in the local newspapers, and in which they, *inter alia*, charged the Committee with having based "their refusal to accede to the wishes of the Association on *two assumptions*: First, that the test is infallible; and second, that if a cow re-acts she will of necessity give milk containing germs of tuberculosis."

The above statement is entirely without foundation under each of the two items named. First, because the infallibility of the test is no assumption, but is most positively affirmed by Professor Sir John Macfadyean, M.B., as quoted in the Report of the Royal Commission on Tuberculosis of 1898 (Part I., pp. 3 and 4), whose authoritative conclusions the Commission state they "entirely accept." In the second place, the Sanitary Committee—whatever their opinion may be as to the milk of a re-acting cow containing, *of necessity*, the germs of tuberculosis—certainly express no such opinion in their reply.

The dairy farmers appear to think that in the absence of general legislation with respect to tuberculosis of cattle the individual action of the Sanitary Committee to secure a tubercle-free milk supply for Newcastle is an injustice to their trade. They express their approval of a general law for the extinction of tuberculosis, provided that they may be compensated for loss in dealing with diseased animals.

In accordance with the above and other objects, a Bill* has been drafted by the writer, and now awaits the consideration of the National Union of Public Health Authorities.

OTHER WORK OF THE HEALTH DEPARTMENT.

The Report of the Inspector of Nuisances, Common Lodging Houses, &c. (Mr. Wm. Hudspeth), is given on pages 39 to 62.

The Report of the Veterinary Officer and Inspector of Provisions, &c. (Mr. Thos. Parker, F.R.C.V.S.), is given on pages 63 to 76.

Barrasford Sanatorium for Consumptives.

During the twelve months ended 26th November, 1909, a total of 64 Corporation patients were admitted for treatment in the Sanatorium. The Reports on these cases are given in Appendix C.

Reduction of Estimates of Expenditure of the Health Department.

During the past year, by the order of the City Council, the increasing work of the Health Department has had to be carried on, for the second time in succession, under a large reduction in the expenditure. Attempted compliance with these orders has necessarily hampered the Sanitary Committee in the performance of its functions. The staff of the Health Department proper has had to be reduced by the dismissal of four Health Visitors, whose excellent services have been shown in previous Annual Reports of the Medical Officer of Health; the work of the Inspectors and other officials has been greatly curtailed by the stoppage of the payment of their tram fares to enable them to reach, and get expeditiously

*"Tuberculosis (Human and Bovine) Bill."

about, their respective districts, thus resulting in loss of time equivalent to the work of two District Inspectors, and at least as much more in the case of other officers. Notwithstanding these and other curtailments, the estimates as fixed were, of necessity, exceeded and payment of the amounts were subsequently agreed to by Council.

The particular item against which the economists in the Council have declaimed, and as to which they have not hesitated to charge the Sanitary Committee with extravagance, has been the City Hospital for Infectious Diseases. The expenditure of this Hospital, has, it is true, increased very much of late years, but for that there is good and ample reason, as the Council are fully aware, inasmuch as they approved of the enlargement of the establishment by the addition of new wards to accommodate a much greater number of patients than previously, together with a Home for the increased staff of nurses and servants (which staff before the extension of the Hospital had been insufficiently provided for), and other buildings, all of which, since their completion, have been found no more than absolutely necessary, and which, during the year under report, owing to the greatly increased number of patients admitted, have actually been below the requirements. The occupation of the different buildings inevitably involves additional outlay on heating, gas, water service, food, &c., the demand for which has been accompanied by a doubled rateable valuation and a heavy rental not charged hitherto. For the Council to curtail these outlays is practically to acknowledge error in sanctioning the extension of the Hospital.

The Work of the Staff of the Health Department.

In concluding this portion of his Annual Report, the Medical Officer of Health desires to acknowledge gratefully the admirable manner in which the different members of the

staff of the Department in its various sections have, one and all, performed their responsible duties during the past year. This fact has been to him a matter of very great encouragement and support during what has been for one and all an anxious and trying time.

I have the honour to be,

Sir,

Your obedient Servant,

HENRY E. ARMSTRONG, D.Hy.,

Medical Officer of Health.

Health Department,

Town Hall,

Newcastle-upon-Tyne,

16th May, 1910.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

REPORT, 1909.

GENERAL STATISTICS.

DURING the 52 weeks ended 1st January, 1910, 7,682 births and 4,459 deaths were registered in the City. The births represent a rate of 27·3 and the deaths a rate of 15·9* per 1,000 of a population of 281,285 at all ages, as estimated by the Registrar General to the middle of the year.

The following is a table of the recorded rates of mortality from "All Causes," and the seven "Chief Zymotic Diseases," for the year under report and previous years:—

RATES OF MORTALITY PER 1,000 POPULATION OF NEWCASTLE-UPON-TYNE.

A.D.				All Causes.	Seven "Chief Zymotic Diseases."			
					Average for the Decade.	Average for the Decade.		
1870	...	...	...	25·4	...	...	...	3·9
1871	...	...	...	32·2	...	...	...	9·3
1872	...	...	...	26·3	...	...	...	4·5
1873	...	...	...	30·1	...	...	...	6·9
1874	...	...	...	29·2	26·2	...	...	5·5
1875	...	...	...	26·1		...	...	3·6
1876	...	...	...	22·7		...	...	2·6
1877	...	...	...	22·3		...	...	2·5
1878	...	...	...	23·7		...	...	4·6
1879	...	...	...	23·5		...	...	3·9
1880	...	...	...	22·3	23·5	...	...	3·2
1881	...	...	...	21·7		...	...	2·6
1882	...	...	...	23·0		...	...	3·3
1883	...	...	...	25·4		...	...	4·3
1884	...	...	...	23·5		...	...	3·2
1885	...	...	...	26·0		...	...	4·4
1886	...	...	...	22·2		...	...	2·5
1887	...	...	...	25·2		...	...	3·3
1888	...	...	...	20·5		...	...	1·4
1889	...	...	...	25·0		...	...	3·0
1890	...	...	...	26·2	20·6	...	...	2·1
1891	...	...	...	23·6		...	...	2·5
1892	...	...	...	19·5		...	...	1·5
1893	...	...	...	20·9		...	...	2·3
1894	...	...	...	18·0		...	...	1·9
1895	...	...	...	20·0		...	...	2·1
1896	...	...	...	18·4		...	...	1·8
1897	...	...	...	18·7		...	...	1·6
1898	...	...	...	20·9		...	...	2·2
1899	...	...	...	20·2		...	...	1·6
1900	...	...	...	19·1	18·3	...	...	1·2
1901	...	...	...	21·2		...	...	2·2
1902	...	...	...	19·6		...	...	1·6
1903	...	...	...	18·6		...	...	1·1
1904	...	...	...	18·8		...	...	1·5
1905	...	...	...	17·4		...	...	1·3
1906	...	...	...	18·0		...	...	2·1
1907	...	...	...	16·8		...	...	1·4
1908	...	...	...	17·3		...	...	1·3
1909	...	...	...	15·9		...	...	1·2†

* This return now includes all deaths in the City Hospitals for Infectious Diseases. By deducting the deaths in the Royal Victoria Infirmary (340) and the Fleming Memorial Hospital (39) of non-citizens the rate is reduced to 14·5.

† Deducting deaths from diseases not ordinarily notifiable (Measles, 112; Whooping Cough, 70; Diarrhœa, 50), the rate is 0·4.

The numbers of births and deaths in the different Registration Sub-districts of the City during the year 1909, are given in Appendix A, Table I.

Births and Deaths.

The mortality from the "Chief Zymotic Diseases" during successive seasons of the year is as follows:—

REGISTRATION SUB-DISTRICTS AND CITY.																																								
	BENWELL.					ELSWICK.*				ST. NICHOLAS'.				ST. ANDREW'S †				ALL SAINTS'.				BYKER.				WALKER. ‡				CITY.										
	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total.										
Smallpox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	1	7	1	...	9	6	14	9	6	35	8	3	...	1	12	5	4	...	...	9	17	13	5	...	1	19	1	4	3	3	11	48	40	13	11	112		
Scarlet Fever (Scarlatina)	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	1	2	...	...	1	3	9	6	10	4	29	12	6	10	6	34
Diphtheria and Membranous Croup	1	...	1	3	1	...	2	6	1	...	1	...	2	1	3	1	...	5	...	1	3	2	2	3	10	14	7	6	6	33	22	13	12	11	58			
Whooping Cough ...	4	1	...	3	8	4	3	3	...	10	1	1	...	1	3	...	2	...	...	2	7	9	8	4	3	24	...	3	6	7	16	20	23	13	14	70		
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric (or Typhoid) Fever	...	...	...	...	...	2	...	...	...	2	...	...	...	1	1	...	2	...	...	...	...	...	1	...	1	2	4	3	2	4	13	7	5	2	5	19
Simple Continued or Ill- defined Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa (including Dysentery, Epidemic or Zymotic Enteritis, and Intestinal Catarrh.)	1	...	1	8	2	10	5	2	7	1	1	...	1	3	1	1	1	4	...	6	1	1	1	2	15	8	3	3	37	7	50
TOTALS ...	5	8	3	3	19	15	18	20	11	64	10	4	6	4	24	8	11	1	1	21	32	18	9	5	...	28	23	35	24	110	112	90	87	54	343§					

* Includes Union Workhouse.
† Includes Royal Victoria Infirmary and Fleming Memorial Hospital for sick children.
‡ Includes City Hospital for Infectious Diseases.
§ Representing a Rate of 1·2 per 1,000 population.

Diarrhoea
and
Whooping
Cough.

The most fatal Zymotic diseases have been Measles and Whooping Cough from which 112 and 70 deaths respectively are returned.

INFANT MORTALITY.

Infant
Mortality.

The number of Infants dying before the completion of the first year of life is 940, as compared with 1,169, 1,009, and 1,255, respectively in 1908, 1907, and 1906.

REGISTRATION SUB-DISTRICTS.				Deaths of Children under 1 year of age.		Rates per cent. of Deaths under 1 year to Births registered.	
				1909.	1908.	1909.	1908.
Benwell	...	...	...	101	125	11·1	12·8
Elswick	...	...	...	195	220	12·6	13·8
St. Nicholas'	...	...	...	115	165	11·8	15·8
St. Andrew's	...	...	...	109	153	14·5	18·9
All Saints'	...	...	...	113	134	11·9	13·8
Byker	...	...	...	230	301	11·2	12·3
Walker	...	...	...	77	71	15·4	13·2
City	...	...	...	940	1,169	12·2	13·9

UNCERTIFIED DEATHS DURING THE YEAR 1909.

Uncertified
Deaths.

11 deaths have been registered for which no proper medical certificate has been given or inquest held, as compared with 14 during the previous year.

MARRIAGES.

Marriages.

The number of marriages registered in Newcastle-upon-Tyne (Superintendent Registrar's district†), during each of the past ten years (1900-1909), is as under :

Year ended March 31.	Number of Marriages.	Year ended March 31.	Number of Marriages.
1900	2,288	1905	2,181
1901	2,077	1906	2,164
1902	2,277	1907	2,300
1903	2,167	1908	2,018
1904	2,133	1909	1,991†

† Includes the old Municipal area and the Townships of Benwell and Fenham, which were incorporated in November, 1904, but does not include the Registration Sub-District of Walker, as it forms part of the Sub-District of Longbenton. The figures for Walker are not given separately in the returns of the Registrar-General.

‡ The large decrease in Marriages during the past two years is noteworthy as being a probable outcome of the recent depression in trade and coincident distress.

INFECTIOUS DISEASE INQUIRY.

CASES OF INFECTIOUS DISEASE KNOWN TO THE HEALTH DEPARTMENT.

During the year under report the following cases of Infectious Disease have been made known to the Medical Officer of Health by medical practitioners and otherwise.

Notification
of Infectious
Disease.

					CASES KNOWN TO THE HEALTH DEPARTMENT.	
					1909.	1908.
Smallpox	...	...	...	...	—	—
Scarlet Fever	...	...	...	...	844	394
Diphtheria (including Membranous Croup)	...	...	...	...	456	335
Typhus	...	...	...	...	6	—
Enteric (or Typhoid) Fever	...	...	...	...	74	111
Simple Continued Fever	...	...	...	...	—	1
Puerperal Fever	...	...	...	...	11	6
Erysipelas	...	...	...	...	169	147
Relapsing Fever	...	...	...	...	—	—
Epidemic Cerebro-Spinal Meningitis	...	...	...	...	24	2
TOTAL...	...	...	...	...	1,584	996

The following Table shows the different diseases in the respective Wards of the City:—

Infectious
Diseases in
the respec-
tive Wards
of the City.

WARDS.	Smallpox.	Typhus.	Continued Fever.	Scarlet Fever.	Diphtheria (including Membranous Croup).	Enteric (or Typhoid) Fever.	Puerperal Fever.	Erysipelas.	Epidemic Cerebro-Spinal Meningitis.	TOTAL.
Benwell	52	25	2	2	14	1	96
Fenham	41	21	...	...	16	2	80
Elswick East	22	7	...	...	7	2	38
Elswick North	44	22	4	1	13	...	84
Elswick South	...	6	...	60	19	6	3	17	2	113
Arthur's Hill	129	27	5	1	43	...	205
Westgate North	10	8	1	...	3	2	24
Westgate South	16	13	1	...	1	4	35
St. Andrew's North	16	21	8	1	9	5	60
St. John's	9	2	1	...	...	...	12
St. Nicholas'	4	6	...	...	...	...	10
All Saints' West	1	...	...	...	3	...	4
All Saints' East	13	14	7	1	4	...	39
All Saints' North	41	23	1	1	1	...	67
St. Andrew's South	6	5	3	...	...	...	14
Jesmond	130	82	3	1	6	1	223
Heaton	86	39	2	...	5	1	133
Byker	95	63	15	...	21	4	198
Walker	69	59	15	...	6	...	149
City	...	6	—	844	456	74	11	169	24	1584

RETURN SHOWING THE NUMBER OF HOUSEHOLDS, &C., IN WHICH
INFECTIOUS DISEASE WAS NOTIFIED DURING THE YEAR 1909.

No. of
Infected
Households
&c.

DISEASES.	HOUSEHOLDS WITH							Public Institu- tions. *	TOTAL.
	Single Cases.	2 Cases each.	3 Cases each.	4 Cases each.	5 Cases each.	6 Cases each.	7 Cases each.		
Scarlet Fever ...	432	97	32	7	...	...	2	7	577
Diphtheria (including Membranous Croup)	335	31	4	...	1	...	...	8	379†
Enteric (or Typhoid) Fever ...	51	6	1	...	...	...	...	3	61
Continued Fever ...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	11	...	...	...	...	...	...	...	11
Erysipelas ...	127	1	...	...	...	...	...	3	131
Epidemic Cerebro- Spinal Meningitis ...	16	1	...	...	...	...	...	2	19
Typhus ...	...	...	...	...	...	1	...	...	1
TOTAL ...	972	136	37	7	1	1	2	23	1179

* See page 22.

† Does not include the case of a person living out of the City who presented herself at the surgery of a medical practitioner in the City and was found to have Diphtheria.

Scarlet
Fever in
relation to
School
Attendance.

Scarlet Fever in relation to School Attendance.—Of the households infected with Scarlet Fever, 476 contained scholars of one or other of 73 different schools in the City. Scholars of 17 of the largest elementary schools resided in upwards of 10 of such households during the year, the largest number of such households from which children attended any one school being 27.

In six schools there was infection in the households of its scholars during ten months of the year, in two schools during nine months, and in four schools during eight months.

Rate of
Scarlet
Fever and
Diphtheria
in Council
Schools.

Rate of Scarlet Fever and Diphtheria in City Council Schools.—Through the courtesy of the Secretary to the Education Committee, Mr. A. C. Coffin, who has furnished the average daily attendance at each of the Council Schools of the City, it has been possible to prepare the subjoined statement, shewing the percentage of

households of scholars in which Scarlet Fever and Diphtheria was notified to the average number of scholars in each school:—

School.				Per cent. of Households infected with Scarlet Fever. Diphtheria.	
Arthur's Hill ...	...	...	...	0·7	0·6
Bath Lane ...	...	...	...	0·4	0·4
Bentinck ...	...	...	...	0·7	0·3
Blenheim Street	...	...	...	0·7	0·7
Bolam Street ...	...	...	...	1·2	0·4
Chillingham Road	...	...	...	1·9	0·9
Canning Street	...	...	...	1·7	0·5
Clarence Street	...	...	...	2·7	1·0
Diana Street ...	...	...	...	0·9	0·9
Denton Road ...	...	...	...	0·5	0·7
Delaval ...	...	...	...	0·7	0·5
Elswick Road ...	...	...	...	1·0	1·0
Elswick Works	...	...	...	1·2	0·5
Heaton Park Road	...	...	...	0·3	0·4
Mitford Street ...	...	...	...	0·3	0·1
North Heaton ...	...	...	...	1·6	0·5
North View ...	...	...	...	0·5	0·5
Ouseburn ...	...	...	...	0·4	0·7
Raby Street ...	...	...	...	1·0	0·6
Royal Jubilee ...	...	...	...	0·4	0·4
Shieldfield ...	...	...	...	0·6	0·9
South Benwell ...	...	...	...	0·9	0·4
Spital Tongues	...	...	...	—	0·3
Saint Peter's ...	...	...	...	1·0	0·2
Sandyford Road	...	...	...	2·1	0·8
Todd's Nook ...	...	...	...	1·8	1·3
Victoria Jubilee	...	...	...	0·9	0·7
Walker East ...	...	...	...	2·5	2·4
Walker West ...	...	...	...	1·3	0·8
Walker Gate ...	...	...	...	2·7	1·8
Welbeck Road ...	...	...	...	0·9	0·9
Westmorland Road	...	...	...	1·2	0·6
Westgate Hill ...	...	...	...	1·9	0·4
West Jesmond ...	...	...	...	2·5	1·2
Wingrove ...	...	...	...	2·8	0·4

The Medical Officer of Health continues to inform principals of schools of the presence of infectious diseases in the homes of their pupils, as also of the cessation of infection.

Diphtheria in relation to Milk-supply.—The households affected were supplied by a relatively large number of dealers. There is no reason to suppose that any outbreak was attributable

Diphtheria
and Milk
Supply.

to milk. 33 dairies supplied milk to more than one infected household, viz. :—

1 Dairy ...	...	...	*68 households.
1 „ ...	...	...	*17 „
1 „ ...	...	...	*14 „
1 „ ...	...	...	*9 „
1 „ ...	...	...	6 „
2 Dairies	...	...	5 „ each
2 „	...	...	4 „ „
7 „	...	...	3 „ „
17 „	...	...	2 „ „

Enteric
Fever and
MilkSupply.

Enteric Fever in relation to Milk-supply.—The milk supplies of the households infected with Enteric Fever were derived as follows :—

1 Dairy supplied ...	...	...	*8 households.
1 „ „ ...	...	...	4 „
1 „ „ ...	...	...	3 „
2 Dairies „ ...	...	...	2 „ each

Each of the remaining households were supplied by a separate dairy.

Puerperal
Fever.

Puerperal Fever.—Inquiries were made in 11 households containing 11 cases. Five of these were attended by midwives or unregistered women.

Epidemic
Cerebro-
Spinal
Meningitis.

Epidemic Cerebro-Spinal Meningitis.—Twenty-four notifications of cases of this disease were received during the year. In another case which was fatal, the cause of death was certified to be “tuberculous meningitis,” but the medical attendant, as the result of subsequent information, modified his diagnosis to one of Epidemic Cerebro-Spinal Meningitis. Of these twenty-five cases, seven were definitely proved, on further observation, to be suffering from ailments other than as notified.

The subjoined table shows the true cases of the disease.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.							
Total Cases.		Verified Bacteriologically and Clinically.		Bacteriologically Negative,† but Clinically Positive.		Not Examined Bacteriologically but Clinically Positive.	
Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
18	13	11	8	3	1	4	4
						(Including 1 not notified, mentioned above.)	

* Large Dairies. The cases were spread over many months of the year.

† By “Bacteriologically Negative” is meant that no organism was found in the Cerebro-Spinal Fluid.

The remaining seven cases proved to be Tubercular Meningitis (4 cases, of which 2 died), Pneumococcal Meningitis (1 case, fatal), and Summer Diarrhœa (2 cases, both fatal).

The monthly incidence of the eighteen true cases was as follows:—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
—	—	3	4	5	2	2	—	—	1	—	1

Locality.—The first 5 cases all occurred in one limited area of the Westgate South Ward ; 3 of these occurred in one house ; one other had been in close communication with the three. No history of exposure to infection could be found in the fifth case. The remaining cases occurred in the following districts of the City :—Royal Victoria Infirmary, 2 (from Gateshead and Whitley Bay) ; Fleming Memorial Hospital, 1 (from Gateshead) ; Elswick, 2 ; Benwell, 2 ; Heaton, 1 ; Byker, 2 ; Westgate South, 1 (making 6 altogether in that district) ; Arthur's Hill, 1 ; and Shieldfield, 1. From which it may be seen how scattered was the distribution.

The sex and age of the patients were as follows :—*f 14 years ; m 4 years ; f 17 years ; *m 14 years ; *m 7 years ; *f 7 months ; *f 11 years ; *f 17 years ; f 5 months ; f 14 years ; *f 11 months ; *f 4 years ; *f 5 years ; *f 1 year ; m 4 years ; *f 4 months ; *m 22 years ; *f 2 years. Those cases marked * proved fatal.

Only 5 patients had attended school, and no two attended the same school. There was nothing to point to school attendance as a means of spread, nor was there any history of any inter-communication between members of infected households.

In no instance could the original source of the infection be determined.

Owing to lack of isolation accommodation at Walker Gate during March and April, three cases had to be allowed to remain at the Royal Victoria Infirmary and two at the Fleming Memorial Hospital. Of the cases occurring later, six were sent to the City Hospital, Walker Gate ; while the remainder died before their removal could be effected.

The Council decided, in the month of May, to make Epidemic Cerebro-Spinal Meningitis, a notifiable disease under the Infectious Diseases (Notification) Act 1889, for a period of three months from June 2nd. Several notifications of cases of the disease were also received from medical practitioners during other periods of the year.

At the request of the private medical attendants, a number of suspected cases were visited at their own homes by the Medical Officer of Health or his assistant for the purpose of assisting to make a definite diagnosis.

254 contacts, connected in some way or other with the above cases, were visited repeatedly by the special inspectors.

Infectious
Disease
Inquiry.

Infectious Disease Inquiry and Disinfection.—1,584 cases of notifiable infectious disease have been inquired into by the Special Inspectors, and the houses or rooms connected therewith disinfected. This does not include 680 cases of Tuberculosis, Measles, &c., in which fumigation of the infected premises was carried out. The bedding and other infected articles were removed to the Disinfecting Station, and, after purification, returned to the owners.

Infectious
Disease in
Public
Institutions
&c.

INFECTIOUS CASES NOTIFIED IN PUBLIC INSTITUTIONS, &c.

INSTITUTIONS, &c.	Scarlet Fever.	Enteric Fever.	Diph- theria.	Ery- sipelas.	Epidemic Cerebro- Spinal Meningitis	TOTAL.
Royal Victoria Infirmary ...	3	4	3	9	5	24
Fleming Memorial Hospital, North Road... ..	8	1	5	1	1	16
Children's Hospital, City Road ... ..	...	...	1	...	...	1
Royal Victoria Asylum for the Blind	4	...	...	...	...	4
Workhouse	38	3	3	30	...	74
City Hospital for Infectious Diseases..	4	...	4	...	...	8
Boys' Orphanage ... ..	...	...	1	...	...	1
Girls' Orphanage ... ..	...	...	23	...	...	23
Military Barracks	1	...	1	...	...	2
St. Vincent's Home	22	...	...	...	...	22
Total	80	8	41	40	6	175*

* Does not include any cases belonging to the City which could properly be assigned to their homes.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1908.

Number of cases notified during the year 1909 under :—

FORM A.	FORM B.	FORM C.	FORM D.	
Workhouse Poor Law Inmates.	Persons residing in the City, reported by Poor Law Medical Officers.	Persons reported by Superintending Poor Law Officer, as leaving the Poor Law Institution.	Change of address, reported by Relieving Officer.	TOTAL.
128	105	88	9	330

Typhus.—An outbreak of this disease occurred in the latter part of the year.

One case, followed within a few days by four others, all members of the same family, removed to the City Hospital about the end of November as Enteric Fever, were found on admission to be Typhus. Later, the remaining member of the family, the mother, discovered at home ill of the same disease, was also removed.

Infection was almost certainly due to a case of supposed double pneumonia occurring a few weeks before, in the person of a friend of one of the patients. A young woman who nursed the case was afterwards sent to Hospital with Scarlet Fever. In addition to the characteristic signs of Scarlet Fever, this girl showed certain indefinite symptoms which, in the light of future events, are believed to have been due to a mild attack of Typhus. On 16th December, a sister of this young woman was found recovered from supposed pneumonia (most probably Typhus). The house and contents were disinfected. Notwithstanding this, on 3rd January, 1910, the rest of the family, five in number, were found to be ill with Typhus, and were removed, with the supposed convalescent from Pneumonia.

All of the above cases occurred in three houses of the two-roomed flat type, in two adjoining streets, viz.: Greenhow Terrace and Ramshaw Street, Elswick.

In this outbreak there were, therefore, (probably) 14 cases. The original source of infection was not discovered.

Thirty contacts connected with the above cases were kept under observation at their homes. None of these developed the disease.

Smallpox.—There were no cases of this disease in Newcastle during the year under report.

In consequence of the growing neglect of Vaccination, through the excuses available under the ill-advised exemption clauses of the Acts of 1898 and 1907, there is being created a corresponding increase in the proportion of unprotected persons, the presence of whom in the community is a serious menace to the safety of all, in the event of Smallpox appearing in this city. By the courtesy of the Clerk to the Guardians, the Medical Officer of Health is enabled to append particulars of infant vaccination in Newcastle, during the past five years.

Year.	Births Registered.	Successful Vaccinations.	Unsuccessful Vaccinations.	Exemption Certificates	
				Number.	Percentage to Total Births.
1905	7,958	7,264	27	65	0·8
1906	7,721	6,733	28	92	1·2
1907	7,610	6,702	16	94	1·2
*1908	7,747	6,414	20	449	5·8
1909	7,180	5,667	30	517	7·2

* Vaccination Act, 1907, came into force.

During the year under report, 26 Smallpox “contacts” from other towns were kept under observation at their homes in the city.

41 Cholera “contacts” from other towns were also kept under observation.

CITY HOSPITAL FOR INFECTIOUS DISEASES.*

1,090 patients have been treated at the City Hospital for Infectious Diseases at Walker Gate during the year 1909.

City
Hospital for
Infectious
Diseases.

The cases were as follows:—

Admitted as		After observation proved to be																									
	No. of Cases.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus.	Measles.	Rotheln.	Epidemic Cerebro-Spinal Meningitis.	Tubercular Meningitis.	Syphilis.	Septic Rash after Operation.	Dementia.	Morbus Cordis.	Broncho-Pneumonia.	Appendicitis.	Enteritis.	Summer Diarrhœa.	Bright's Disease.	Tonsillitis.	Pharyngitis.	Erythema.	Eczema.	Urticaria.	Addison's Disease.	Febricula.	Desquamation of Feet.	
Scarlet Fever	...	663	621	1	...	2	6	...	...	...	1	...	...	...	...	...	...	..	...	7	3	15	1	1	...	4	1
Diphtheria	...	347	2333	...	...	1	...	...	...	1	...	...	1	1	...	...	...	...	1	7	...	...	...	...	...	...	...
Enteric Fever	...	65	...	56	5	...	...	1	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...	...	...
Typhus	...	2	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Cerebro-Spinal Meningitis	13	...	...	...	...	...	...	6	5	...	...	...	...	...	...	..	2	...	...	...	...	...	...	...	...	...	...
TOTAL	1090	623334	56	6	3	6	7	5	1	1	1	1	1	1	1	1	2	1	14	3	15	1	1	1	4	1

* For other details, see pages 26 and 28.

ADMISSIONS TO, AND DEATHS AT, THE CITY HOSPITAL FOR INFECTIOUS DISEASES
(OTHER THAN SMALLPOX) DURING THE YEAR 1909.

DISEASES.	ADMISSIONS.												DEATHS.													
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Scarlet Fever	46	86	39	32	62	60	32	61	70	38	53	44	623*	1	6	2	1	2	3	1	3	4	1	..	2	26
Diphtheria	34	41	40	33	28	20	26	17	21	26	24	24	334+	5	4	4	2	3	3	2	1	3	1	3	..	31
Enteric Fever	8	4	6	2	..	..	10	10	..	3	6	7	56	3	..	1	2	..	..	2	2	..	1	2	1	12
Typhus . . . . .	..	..	..	..	..	..	..	..	..	..	1	5	6	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles . . . . .	..	..	..	..	..	..	..	1	..	..	..	2	3	..	..	..	..	..	..	1	..	..	..	..	..	..
Rotheln . . . . .	..	..	..	1	2	..	1	1	..	..	1	..	6	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Cerebro-Spinal Meningitis . . . . .	..	..	..	..	4	1	1	1	..	..	..	..	7	..	..	..	..	2	1	..	1	..	..	..	..	1
Tubercular Meningitis . . . . .	..	..	..	..	..	1	2	1	..	1	..	..	5	..	..	..	..	..	1	1	1	..	..	..	..	4
Syphilis	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	3
Septic Rash after Operation . . . . .	..	..	..	..	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Dementia . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Morbis Cordis . . . . .	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Broncho-Pneumonia . . . . .	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Appendicitis	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteritis . . . . .	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Summer Diarrhoea . . . . .	..	..	..	..	..	..	2	..	..	..	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	2
Bright's Disease. . . . .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Tonsillitis	1	..	1	1	1	1	2	..	5	1	3	..	14	1	..	..	..	..	..	..	..	..	..	..	..	1
Pharyngitis. . . . .	..	..	..	..	..	..	..	4	2	2	3	4	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Erythema . . . . .	..	..	..	..	..	..	..	..	1	..	..	..	15	..	..	..	..	..	..	..	..	..	..	..	..	..
Eczema . . . . .	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Urticaria . . . . .	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Addison's Disease	1	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1
Febricula . . . . .	..	..	1	..	..	1	1	..	1	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..
Desquamation of Feet . . . . .	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL	92	132	88	69	99	84	77	96	102	72	92	87	1090	11	10	7	5	7	8	9	6	7	3	5	3	81

* Includes 4 Probationers.

+ Includes 3 Probationers, 1 Ward Maid, and 1 Laundry Maid.

CITY HOSPITAL FOR INFECTIOUS DISEASES.

City
Hospital for
Infectious
Diseases.

RATE PER CENT. OF CASES REMOVED TO HOSPITAL TO CASES NOTIFIED,
DURING EACH OF THE PAST TEN YEARS.

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
Scarlet Fever	35·0	40·0	41·9	44·3	57·1	50·1	53·2	64·8	73·6	78·6
Diphtheria	28·7	28·8	24·1	24·5	35·8	36·8	37·4	51·4	68·1	76·1
Enteric Fever	45·6	44·7	50·9	58·7	53·3	52·0	78·6	62·1	82·9	82·3
All cases of the above to- gether with Continued and Typhus Fever... ..	38·5	39·7	42·0	45·1	46·0	47·8	56·6	59·9	72·6	78·0

From the above table it will be seen how the proportion of infectious cases removed to Hospital continues to increase. Although the figures for ten years only are shown, the increase over years prior to this period is still more marked.

MORTALITY OF CASES TREATED IN HOSPITAL AS COMPARED WITH CASES TREATED
AT HOME, DURING 1909.

DISEASE.	HOSPITAL.			HOME.		
	Total Cases.	Deaths.	Case Mortality per cent.	Total Cases.	Deaths.	Case Mortality per cent.
Scarlet Fever ...	623	26	4·2	181	8	4·4
Diphtheria	334	31	9·3	109	27	24·8
Enteric Fever ...	56	12	21·4	14	7	50·0

Diphtheria Cases in Hospital.—Of the 334 patients sent to Hospital, 276 were faucial or pharyngeal cases, and of these 18, or 6·5 per cent., died. 58 were laryngeal or tracheal, and of these 13, or 22·4 per cent., died. Tracheotomy was performed on 23 patients, of whom 8, or 34·8 per cent., died. 10 of the cases were non-clinical.

Of these 31 deaths, 5 were of patients practically moribund on admission, who died within 24 hours; 1 of these was operated upon, but too late to save life.

As hitherto, the patients sent to Hospital came, generally speaking, from much less favourable surroundings than those treated at home, and suffered from a severer type of the disease.

Antitoxin is used as a routine treatment for all Hospital cases of Diphtheria.

Cases of Mixed Infection.—59 patients sent into Hospital were found on admission to be suffering from two distinct infectious diseases, as follows:—

Scarlet Fever and Diphtheria	...	...	...	6
Scarlet Fever and Chickenpox	...	..	...	1
Scarlet Fever and Rotheln	...	...	...	4
Scarlet Fever and Ringworm	...	...	...	7
Scarlet Fever and Measles	...	...	...	16
Scarlet Fever and (?) Typhus	...	...	...	1
Diphtheria and Measles	...	...	...	10
Diphtheria, Measles, and Ringworm	...	...	...	1
Diphtheria and Ringworm	...	...	...	4
Diphtheria and Scarlet Fever	...	...	...	5
Diphtheria and Phthisis	...	...	...	2
Diphtheria and Syphilis	...	...	...	1
Enteric Fever and Phthisis	...	...	...	1

Expenses of Maintenance.—Of the patients admitted, the expense of maintenance is charged as under:—

					Cases.
To the Newcastle Sanitary Authority	...	...	...	...	1082
To private guarantors	...	...	...	...	8
Total	...	...	...	...	<u>1090</u>

Smallpox and “Contact” Isolation Hospitals.—No case of smallpox occurred in the City during the year. These Hospitals were used as an overflow for Scarlet Fever convalescent patients from the City Hospital for Infectious Diseases, and for the reception of Scarlet Fever “contacts” whilst the infected premises from which cases were removed were being disinfected and boy newspaper hawkers affected with Itch, &c. The total number of such admissions was 83.

INFECTED ARTICLES DESTROYED AND REPLACED BY THE HEALTH
DEPARTMENT.

							1909	1908.
Half Straw Mattresses	...	...	...	...	...	...	84	40
Flock Beds	...	...	...	...	...	...	2	4
Flock Bolster	...	...	...	...	...	...	—	1
Bed Tick	...	...	...	...	...	...	—	1

INFECTED ARTICLES PURIFIED IN THE DISINFECTING APPARATUS AT THE
CITY HOSPITAL FOR INFECTIOUS DISEASES, WALKER GATE, AND THE
ISOLATION HOSPITAL, TOWN MOOR, DURING THE YEAR 1909.

ARTICLES FROM CITY.		ARTICLES--HOSPITAL PROPERTY.	
1909.	1908.	1909.	1908.
26,942	15,112	6,750	4,081

INFANT MORTALITY.

The Report of the Superintendent of Midwives is as follows :—

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

Herewith I beg to submit my Report for the year 1909.

MIDWIVES' ACT, 1902.

During the year 1909 twenty-seven midwives notified the Local Supervising Authority of their intention to practise.

At the end of the year the number was reduced to twenty-six.

Six midwives work entirely as monthly nurses. Twenty-one act as midwives and occasionally as monthly nurses.

Removal of Name from Roll.—The name of one midwife has been erased from the Roll of the Central Midwives' Board on account of disobedience of the Rules of the Board.

Midwives' Inspections.—113 visits have been paid to the midwives' homes in order to inspect the sanitary state of their dwellings, to see that their bags of instruments are kept in proper condition, and that their case books are properly filled up in accordance with the Rules of the Central Midwives' Board. The standard of cleanliness and general efficiency is very well maintained; and as the result of the efforts of the Health Department, the midwives take a keen interest in the methods adopted for the preservation of infant life, and act as valuable auxiliaries to the Department, by giving the mothers simple and sound advice on the care of their babies.

Expectant Mothers.—206 have been visited and advised as to diet, occupation, and care of their health.

Lying-in-women.—2,130 mothers have been visited during the first fortnight after confinement, and advised as to care of themselves and their new-born children.

Special visits to infants, for general attention during the first year of life, have been made in 321 cases of malnutrition or ill-health. The mothers were directed to obtain medical advice when necessary.

Puerperal Septicæmia.—11 cases were reported during the year. Of these, three had been attended by unregistered handywomen, and two occurred in the practice of midwives. In each of the latter cases, the midwife was suspended from practice for three days, during which disinfection was carried out.

Uncertified Women.—12 visits have been paid to these. About 70 women of this class, untrained “handywomen,” are known to the Health Department to be in the habit of attending confinements in this city. On and after April 1st, 1910, it became illegal for any woman who is not a certified midwife, whether calling herself a midwife or not, to attend cases on her own responsibility, except in emergency. Henceforth it will be easier to control the actions of these undesirable and dangerous practitioners of obstetrics, notwithstanding the difficulty of proving that any given attendance was not under emergency.

Notices to Local Supervising Authority from midwives who had sent for Medical Help—116. The details are as under:—

Prematurity	30	Ante-partum hæmorrhage	2
Uterine Inertia	13	Post-partum hæmorrhage	3
Infantile Convulsions ...	13	Rupture of Perineum ...	4
Immaturity	14	Ophthalmia Neonatorum	2
Mothers' illness... ..	3	Large Fœtus	1
Syncope (mother)	1	Spina Bifida	2
Abnormal Presentation	5	Cleft Palate	1
Rise of temperature ...	6	Still-birth	4
Melæna	1	Abortion	4
Adherent Placenta	6		
Contracted Pelvis	1		
			116

Each case where the Medical Practitioner's fee was charged to the Board of Guardians has been visited and investigated.

Lectures to Midwives.—20 were delivered and were well attended. The instruction given appears to be thoroughly appreciated, and is almost invariably acted upon.

Health talks to Mothers' Meetings were given in 11 instances on request of the Secretaries. Two lectures were delivered at Girls' Clubs.

Insanitary Dwellings reported.—11 cases of overcrowding and insanitary conditions.

Relief Recommendations for the lying-in-period given to 3 cases where the mother was in need of nourishment.

Leaflets. (Advice to expectant mothers).—4,000 were distributed during the year.

Exhibition of Babies and Nursery Appliances.—A highly successful exhibition, arranged by an influential committee of ladies of the City, was held in the Town Hall on October 2nd. Much assistance was given them by members of the staff of the Health Department in their endeavour to make the function as valuable as possible from an educational point of view. The number of babies exhibited was 564.

NOTIFICATION OF BIRTHS ACT, 1907.

During the year 1909, notifications of 5,180 births have been received out of a total of 7,682 births registered; thus only 67·4 per cent. of the births were notified, 32·6 per cent. not being returned. Almost all of these latter occurred in the practice of medical men, and in one particular area of the City. There is reason to believe that all, or nearly all, of the births attended by midwives, and of those attended by unregistered women, are reported to the Health Department.

The following table shows from whom the notifications have been received:—

Notified by				Living Births.	Still Births.
Medical Practitioners...	...	...	...	2,377	122
Maternity Hospital	...	...	...	1,188	48
Union Infirmary	...	...	...	72	4
Midwives	...	...	...	1,250	37
Unregistered Women	...	...	...	225	3
Parents	...	...	...	68	6
Total				5,180	220

Of these, 2,139 cases in the poorer parts of the City were visited as soon as possible after birth, and 1,454 were entered in the books of the special Health Visitors for regular revisitation until the infants attain the age of 12 months, only those cases being so supervised whose surroundings and circumstances were exceptionally unfavourable, and whose chances of survival were least. As these children become a year old in 1910, the results of the work done on their behalf will be described in the Report for that year.

The following particulars regarding the babies born in 1908, who reached their second birthday during 1909, are of interest. 1,432 names were entered on the lists of the Health Visitors. Of these, 202 were lost sight of and could not be traced, many of the parents having left the City on account of trade depression.

Of the remaining 1,230, 174 died—*i.e.*, 141 deaths per 1,000 births, as compared with a mortality rate for the City generally of 122 deaths per 1,000 births, which is the lowest on record. The cases dealt with in this Report include the first year's batch of babies notified under the Notification of Births Act 1907, by means of which the Health Department became apprised of a very much larger proportion of births among the poorest and most ignorant classes of the community. Consequently regular visitation of the cases attended by the midwives has now ceased, and only those infants are listed whose circumstances and surroundings render their chances of survival extremely precarious, and whose mothers have no one at all to whom to apply for advice.

Influence of Housing Accommodation.—Of infants living in single-roomed houses, the infantile mortality rate was 129 per 1,000 births; of those in two-roomed houses, 109 per 1,000 births; of those in three-roomed houses, 165 per 1,000 births; and of those in houses of more than three rooms, 88 per 1,000 births.

Parental Employment.—Only a small proportion of mothers are at work; the figures available do not point to the maternal employment exercising any particular influence upon the health of the infant.

Health of Mother.—Where the mother was in bad health, the infantile mortality rate was 174 per 1,000 births.

Attendance at Birth.—Of the midwives' cases, the mortality figure is 122 per 1,000. Of the babies whose advent was assisted by untrained handywomen, the mortality was at the rate of 177 per 1,000 births.

Feeding.—28 per cent. of the babies under observation received artificial (in addition to breast) feeding before the age of nine months, and only 2 per cent. were entirely artificially fed. The infantile mortality figures are as follows:—

Entirely breast fed	177 per 1,000.
Mixed feeding (breast and artificial)	175 „
Entirely artificially fed ...	9 deaths out of 30.

Illegitimacy.—The infantile mortality rate for legitimate children is 118 per 1,000, whereas that of the illegitimate babies is 186 per 1,000 births.

Sex.—The mortality rate among male infants was 141, and that among females 101, per 1,000 births.

I am Sir,

Your obedient Servant,

ELIA RENAUD,

Superintendent of Midwives.

Health Department,
Town Hall,
May 10th, 1910.

HEALTH VISITORS.

On May 14th, 1909, the four Women Health Visitors ceased work, the Sanitary Committee having been compelled reluctantly to dispense with their services on the order of the City Council to reduce the estimates of expenditure of the Health Department.

The duties of these Visitors consisted in the systematic house to house visitation of tenement dwellings for the purpose of advising the occupants on matters of domestic hygiene and management, the safeguarding of consumptives, and the observance of the tenement bye-laws. Their work had an excellent influence upon the various districts, and it is only now, when their services are no longer available, that their value can be fully realised. To those who are conversant with the domestic circumstances of the poorest sections of our population, the change for the worse, especially in regard to cleanliness, has been most marked since the withdrawal of these officers. This cannot fail to exert an unfavourable effect upon the general health of the community.

Again, it is now no longer possible to supervise as thoroughly as is necessary the consumptives who live in the tenement houses, and those of whom the Medical Officer of Health receives notification under the Public Health (Tuberculosis) Order, 1908.

It is a matter for profound regret that the Sanitary Committee should have been compelled to take the retrograde step above indicated.

For details of the work done by the four Health Visitors from January 1st to May 14th, 1909, see table on following page.

REPORTS AS TO SANITARY DEFECTS OR CONTRAVENTIONS OF ACTS OR
BYE-LAWS.

	Reported.	Remedies effected.	Referred to Inspector of Nuisances.
Nuisances :—			
Dilapidations and structural sanitary defects	284	87	250
Dampness or darkness of rooms	133	3	75
Defective drainage	152	59	85
Accumulation of filth or refuse	88	28	60
Offensive smells	35	6	20
Insanitary Cellar Dwellings not in conformity with Law	3	...	1
Breaches of Tenement Bye-Laws :—			
Overcrowding	45	16	25
Uncleanliness of premises	1,743	2,976	4
Defective water supply	75	27	66
Defective closet or ashtub accommodation	153	52	124
Cases of Consumption amongst occupants of tenement dwellings	173	...	...
Cases of other infectious disease amongst occupants of tenement dwellings	179	...	1
Other insanitary conditions not specified above	60	6	24
Children—cruelty to or neglect of	402	56	...
Recommendations for notices to be served	59	38	5
Advice as to ventilation, food, clothing, temperance, thrift, and the carrying out of sanitary precautions not specified above	10,593	...	...
Directions as to applications for Hospital or other relief	158	44	...
Leaflets distributed	640	...	...

Summary of
Reports, &c.
made during
the year.

SUMMARY OF REPORTS MADE DURING 1909.

The following, among other matters, have been brought
before the Sanitary Committee during the year :—

INFECTIOUS DISEASE.

Scarlet Fever at St. Vincent's Home	Feb., Mar. (bis.)
Diphtheria at the Girls' Orphanage	Feb., March.
Scarlet Fever in the Workhouse	Mar. (bis.) June.
Public Health (Tuberculosis) Regulations, 1908, Notification of Consumption in Poor Persons	March.
Epidemic Cerebro-Spinal Meningitis	April, June.
School Training and Prevention of Tuberculosis	Aug., Oct,
Infectious Disease and West Jesmond Council Schools	August.
Compensation for goods destroyed	Sept., Nov.
Typhus	Dec.
Notification of Epidemic Cerebro-Spinal Meningitis and Phthisis	Dec.

CITY HOSPITAL FOR INFECTIOUS DISEASES.

Tenders for Supplies	Feb., March.
Tenders for bedding, clothing, &c.	May, June, July.
Cost of stimulants and aerated waters	Feb.

Increased rating assessment	...	...	...	...	July.
Escape of a Scarlet Fever convalescent	...	...	...	...	Aug.
Claim for compensation for accident	...	...	...	...	Sept.
Workmen's Compensation Act and infectious sickness in staff	...	...	...	...	Nov.
Cost of maintenance	...	...	...	...	Nov.

LOCALITIES.

Houses unfit for habitation	...	...	...	...	Jan., Mar. (bis.), May, Sept., Oct., Nov. (bis.)
N.E.R. Carriage Works, Walker Gate—Smoke nuisance	...	...	...	...	Jan.
Cattle Market—Meat shed	...	...	...	...	Feb.
Back Ridley Villas—Proposed extension of bakehouse	...	...	...	...	Mar.
Stepney—Proposed slaughter house	...	...	...	...	Mar., April.
St. Nicholas' Schools	...	...	...	...	Mar. (bis.)
Elswick Quarry—Piggeries	...	...	...	...	March, Aug.
Union Road—Nuisance from stagnant water	...	...	...	...	June.
39, Shields Road—Slaughter house	...	...	...	...	Aug.
Cattle Market slaughter houses	...	...	...	...	Aug.
Vegetable Market, Newgate Street	...	...	...	...	Sept.
Adderstone Crescent—Smells from Sewers	...	...	...	...	Sept.
Back Hawes Street—Slaughter house	...	...	...	...	Sept.
Ord Arms, Cowgate—Pailclosets	...	...	...	...	Nov.
Franklin Street—Tenement houses	...	...	...	...	Nov.
Wingrove Avenue—Flooding of houses	...	...	...	...	Nov.

GENERAL.

Foreign Meat Regulations	...	...	...	...	Jan., Feb.
Insufficient Fire-escape (F. & W. Act)	...	...	...	...	Jan.
Estimates of Expenditure for 1909-10	...	...	...	...	Jan.
Bacteriological Examinations (fortnightly)	...	...	...	...
Tuberculous Milk	...	...	...	...	Jan., Mar. (3 times) April, May (bis.), Sept., Nov., Dec.,
Barrasford Sanatorium	...	...	...	...	Jan., June.
Ambulance Driver, Jas. Bruce—Superannuation charges	...	...	...	...	Jan., Feb.
Leeds Health Congress, 1909	...	...	...	...	Mar. (bis.), Aug.
Salary of Public Analyst	...	...	...	...	Mar.
Slaughter-house Licences	...	...	...	...	Mar (bis.)
Bacterial Work and Medical Inspection of school children	...	...	...	...	Mar.
Tenders for Inspectors' Uniforms	...	...	...	...	Mar., Oct., Nov.
Northumberland and Durham Dairy Farmers' Association.	...	...	...	...
Reply to statement of deputation	...	...	...	...	April, May.
Reduction of Estimates of Health Department—Inspection of new house drains and factories and workshops	...	...	...	...	April.
Sanitary Inspection of Schools	...	...	...	...	May.
National Union of Public Health Authorities	...	...	...	...	May.
Tram Fares for Inspectors of Health Department	...	...	...	...	June, Aug. (bis.)
Vegetable Butter	...	...	...	...	July.
Inspection of Corporation Buildings—Charge for	...	...	...	...	Aug.
Conference on Smoke Abatement, September, 1909	...	...	...	...	Aug.
International Congress of Hygiene and Demography, Wash- ington, 1910	...	...	...	...	Aug.
Special Committee as to Municipal Employés	...	...	...	...	Aug., Sept.
Pollution of Milk at Elswick Railway Station	...	...	...	...	Oct.
Dirty Milk	...	...	...	...	Nov., Dec.
Lectures by Superintendent of Midwives	...	...	...	...	Nov.
Royal Sanitary Institute—Sessional Meeting	...	...	...	...	Nov.
Royal Sanitary Institute—Congress at Brighton, 1910	...	...	...	...	Nov.

The Report of Professor H. J. Hutchens on the work of the Bacteriological Department during the year is as follows:—

Summary of the Bacteriological work done for the Health Department of the Newcastle Corporation during the year 1909.

3,149 specimens were submitted for examination. The nature of the investigations, and the results obtained, were as follows:—

	DIPHTHERIA.			PHTHISIS.			ENTERIC FEVER.		
	Total.	Posi- tive.	Nega- tive.	Total.	Posi- tive.	Nega- tive.	Total.	Posi- tive.	Nega- tive.
No. of Examina- tions ...	2,054	767	1,287	477	159	318	147	49	98

Water:—

	Total.	CLASS I. Satis- factory.	CLASS II. Doubtful.	CLASS III. Unsatis- factory.	CLASS IV. Bad.
No. of Examina- tions ...	178	54	79	42	3

Milk:—

	Organisms, other than Tubercle Bacilli.			Tubercle Bacilli.		
	Total.	Satis- factory.	Unsatis- factory.	Total.	Tub. Bac. found.	Tub. Bac. not found.
No. of Examina- tions ...	179	142	37	111	10	101

Other investigations include the following:—

Anthrax.—Various tissues from a bullock were examined, but no anthrax bacilli found.

Tuberculous glands in meat.—A piece of cooked meat was submitted for examination for tubercle. This bacillus was not found.

A piece of meat was suspected to be contaminated with organisms. Bacteriological examination failed to confirm the suspicion.

H. J. HUTCHENS,

Bacteriologist.

*University of Durham College of Medicine,
Newcastle-upon-Tyne,
18th April, 1910.*

REPORT OF THE INSPECTOR OF NUISANCES.

The Report of Mr. W. Hudspith, Inspector of Nuisances, New House Drainage, Common Lodging-houses, Workshops, and Food Adulteration, is given below :—

General
Work of the
Health
Department

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I beg to present to you my second report of the work done in my section of the Health Department during the year ended December 31st, 1909. See Tables 1 to 6A, pages 45 to 62.

I would repeat that these returns do not necessarily show all the nuisances which have been dealt with, nor the amount of work entailed in accomplishing their abatement. Many nuisances were abated forthwith in consequence of personal interviews with the persons responsible, in which case no notice was served, and in other instances, where notices have had to be served, efforts have been made, by means of reminding letters, interviews, &c., to secure compliance with the Authority's requirements without having recourse to legal proceedings. A considerable amount of time is also involved in the supervision of work in progress, which cannot be shown in tabular form. The Tables given will, however, show, as far as it is possible to do so, the nature and extent of the work which has been carried on.

Nuisance Abatement.—The total inspections made, the number of nuisances dealt with, &c., recorded in the Tables, show a falling off as compared with the previous year. This is due to the withdrawal of the free travelling facilities on the tramcars, previously afforded the Assistant Inspectors whose work lies at a distance from the Town Hall. These officers were formerly enabled to ride to and from their districts, thus effecting a considerable saving of time, which was consequently devoted to the actual work of their districts.

The use of the tramcars as above has, however, now been resumed, and is, in my opinion, essential to the proper working of the Department.

Details of the work of nuisance abatement are given in Tables I. and II. A large number of insanitary conveniences, viz., 65 midden-privies, 100 "cell" privies in the districts of Benwell and Walker, and 124 pailclosets have been removed and waterclosets substituted, and many more are being dealt with.

407 free ashtubs have been given in consideration of owners of property doing away with ashpits, pailclosets, &c. The result of this arrangement continues to be exceedingly satisfactory, and has been, in many cases, the means of inducing owners to effect a great sanitary improvement by the removal of these structures. The knowledge that the Corporation is willing to help them in this manner has resulted in a great deal of good.

Magisterial Proceedings (see Tables III. and IV.)—It is again satisfactory to have to state that only in very few cases of nuisance was it found necessary to resort to legal proceedings. In the majority of cases, where the notices served were not complied with in the first instance, reminding letters and personal calls upon the persons concerned resulted in the necessary work being carried out.

Tenement Byelaws.—The number of tenemented houses in the City is 3,604, containing 10,419 holdings, as follows:—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms.	5 Rooms.	Total.
3,552	5,635	1,113	117	2	10,419

The Bye-laws with respect to these houses have been fairly well complied with. The Bye-law requiring the half-yearly limewashing of tenement yards, passages, &c., continues to entail a great amount of work by the Health Department officers. In the year under report, 7,549 visits were made in connection with the enforcement of this Bye-law alone. As has been the practice previously, circular letters have been issued to all landlords of tenemented property, calling their attention to the requirements of this Bye-law. This, together with personal interviews, &c., resulted, in most cases, in the necessary

limewashing, &c., being carried out without recourse to magisterial proceedings, which were only rendered necessary in three cases.

Drains of New Buildings.—Details of this work are shown in the following Table :—

Total No. of Drains laid.	No of Drains Tested with Water.	No. of Drains Tested with Smoke.	Supplementary Tests.	Supervisions of Works in Progress.	Inspections to learn if Works were in Progress.
584	564	20	1,592	2,929	517

Smoke Inspections.—The following are particulars as to smoke observations taken :—

No. of chimneys watched.	No. of observations of chimneys made.	No. of chimneys from which black smoke issued in such quantity as to be a nuisance for periods of over 5 minutes in the aggregate in one hour.	No. of times when smoke issued so as to be a nuisance.	No. of notices served for the abatement of smoke nuisances.	
				Informal.	Statutory
109	180	26	34	17	—

Offensive Trades.—49 of these trades are carried on at 48 different premises, which have been systematically visited during the year. The trades referred to are: Tripe Boilers (7), Gut Scraper (1), Soap Boilers (2), Bone Boilers (2), Tanners (2), Fish Curers (4), Manure Manufacturers (2), Bone Store (1), Tallow Melters (2), Hide and Skin Dealers (5) Marine Store Dealers (21).

Common Lodging Houses.—These houses continue to be fairly well conducted. Three have been voluntarily closed as common lodging houses, and converted into private dwelling houses, &c.

Two additional houses have been added to the Register. The number of common lodging houses in the City at the end of the year was 62. The total number of lodgers for which these houses were registered was, at the close of the year, 2,154, as against 2,233 at the end of 1908. The average number of lodgers

per night was 1,430, the highest and lowest numbers on any one night being 1,511 and 1,330 respectively.

For details see Tables VI. and VIA.

The Inspectors who do this work also obtain samples of water and milk for bacteriological examination, and collected 180 of the former, and 290 of the latter during the year. These officers also take smoke observations, and assist the District Inspectors when required.

Bakehouses.—The retail bakehouses (112) have been systematically inspected, and were found to be kept in good order.

Adulteration Acts.—One of the three Inspectors who previously inspected the drains of new buildings, and obtained samples for analysis under the Food and Drugs and Margarine Acts, has been specially set apart for the latter work. This has proved to be a more satisfactory arrangement. The number of samples of food and drugs purchased for analysis during the year is 1,127, against 712 in the previous year. For details see Table IV.

Milk.—The number of milk samples purchased is 700. All of these were submitted to the Public Analyst, who certified that 74 of them were below the standard fixed by the “Sale of Milk Regulations, 1901,” one also contained formaldehyde. 626 were genuine (except that 1 contained a small percentage of boric acid).

Of the total number of samples taken (1,127), 273 were collected “informally,” through the agency of hired persons, viz.:—

Butter 31	Tapioca 5	German Sausage ... 1
Margarine 12	Ground Ginger ... 9	Flowers of Sulphur 8
Ground Rice 17	Lard 2	Camphorated Oil ... 6
Corn Flour 11	Condensed Milk ... 7	Glycerine 6
Mustard 10	Table Salt 2	Cream of Tartar ... 12
White Pepper... .. 9	Vegetable Butter ... 2	Tartaric Acid 4
Black Pepper 4	Cream 4	Gregory's Powder... 6
Baking Powder ... 10	Jam 4	Olive Oil 6
Arrowroot 10	Rice 2	Magnesia 1
Ground Almonds ... 10	Syrup 1	Spirits of Nitre ... 8
Vinegar 12	Toffee 2	Paregoric... .. 10
Semolina 7	Bride's Cake 1	Tincture of Rhubarb 6
Sago 7	Tea 2	Syrup of Rhubarb ... 6

The percentage of samples not genuine to the total number taken is 10·9 (compared with 11·2 for the previous year), and the percentage of milk samples below standard to the number of milk samples taken is 10·6, as against 14·1 in 1908. The total number of samples taken is at the rate of 4·0 per 1,000 of the population (estimated) of the City for the year 1909.

Preservatives in Food.—Of the total number of samples taken for analysis (1,127) 62 (or 5·5 per cent.) contained preservatives, as follows:—

- 30 samples of Butter contained Boric Acid, in amounts varying from 0·06 to 0·45 per cent.
- 23 samples of Margarine contained Boric Acid. In 11 cases the amounts varied from 0·10 per cent. to 0·40 per cent, and in the remainder the amount was not determined exactly, but was below the limit allowed.
- 4 samples of Cream contained Boric Acid in quantities varying from 0·10 per cent. to 0·26 per cent.
- *2 samples of Skimmed Milk contained Boric Acid to the extent of 0·07 per cent. each
- 1 sample of New Milk do. do. do. 0·025 per cent.
- 1 Do. German Sausage do. do. do. 0·37 ,,
- *1 Do. New Milk contained formaldehyde to the extent of at least 3 parts per 100,000.

* Proceedings taken in these cases. See Table IV.

Margarine Act.—25 samples of Margarine (included in the above total) have been purchased and analysed. All were genuine, excepting that 23 contained Boric Acid, the amounts of which were, however, within the limit allowed. See Table IV.

Margarine Warehouses.—84 visits have been made to the margarine warehouses. In one case a contravention of the law as to the proper marking of packages containing margarine was found. A letter of caution was sent, which resulted in subsequent compliance with the Act.

Houses Demolished.—13 tenemented houses (31 holdings), and 4 self-contained houses have been taken down to make room for business premises, &c. These are in addition to the number closed as unfit for habitation, and reported upon by the Medical Officer of Health.

Factory and Workshop Acts.—There are 1,132 Workshops on the Register, besides a large number of factories, domestic workshops, workplaces, laundries, bakehouses, &c. Particulars as to

inspections made, defects found, outworkers, &c., are given in Table V., pages 59 to 61.

Factory and Workshop Act, 1901.—During the year, 89 lists of outworkers have been received, 62 employers having sent in lists twice, and 27 employers once.

During the year 66 complaints as to insanitary conditions in factories and workshops were received from H.M. Inspector of Factories. These were all inquired into, the various matters dealt with, and the results reported to the Inspector of Factories, as required by the Act.

Sanitary Inspection of Council Schools.—264 inspections of these schools have been made during the year. Most of these, however, were only preliminary or superficial examinations, it being found impossible to make more thorough examinations owing to continued pressure on the general work of the Staff. In 13 cases, insanitary conditions were found. Five of these consisted of minor matters which were immediately remedied, and the remainder (defective drains, &c.) were reported to the Secretary to the Education Committee.

I am, Sir,

Your obedient Servant,

W. HUDSPETH,

*Inspector of Nuisances,
Common Lodging Houses, &c.*

Health Department,

Town Hall,

2nd May, 1910.

TABLE I.

SUMMARY OF NUISANCES FOR THE ABATEMENT OF WHICH NOTICES
WERE SERVED DURING 1909.

Foul privies and ashpits (to replace with water-closets)...	{ Privies	90
	{ Ashpits	72
Defective "cell" privies in Benwell and Walker (to replace with water-closets)		186
Foul ashpits not connected with privies (to remove and provide tubs)		62
Insufficient water-closet or privy accommodation (additional water-closets ordered)		24
Defective or insufficient tubs for dry house refuse (to provide new or additional tubs)		515
Defective water-closets (to repair)		385
Water-closets without water supply (to provide water)		105
Choked water-closets (to cleanse—mostly served on tenants)		400
Dirty water-closets (to cleanse—all served on tenants)		161
Defective pail-closets (to repair, provide new pails, &c.)		468
Foul pail-closets (to replace with water-closets)		159
Dirty pail-closets (to cleanse—all served on tenants)		123
Defective drains (to repair, or construct new drains)		335
Choked drains, etc. (to cleanse)		597
Defective or choked sinks, soilpipes, etc. (to repair or cleanse)		127
Sink wastepipes not trapped, &c... ..		50
Defective pavement in yards and passages (to repair)		170
Dirty or dilapidated rooms (to be cleansed or repaired)		222
Damp rooms		28
Overcrowding (to abate)		57
Dirty yards and passages (to cleanse)		352
Animals, pigeons, and fowls improperly kept (to remove)		30
Offensive accumulations (to remove)		134
Accumulations of manure (to periodically remove)... ..		18
Want of manure pits (to provide)		7
Broken roofs and water spouting (to repair)		243
Want of water (to provide supply)		230
Smoke nuisances (to abate)		17
Want of proper ventilation to tenement rooms owing to window cords being broken (to provide proper sash cords)		41
Defective "waste" waterclosets (to remove, and provide w.c's with flushing cisterns, &c.)		12
Pig styes defective		10
Defects in { Conveniences dirty or choked		5
Schools { Defective drains, &c.		8
Slop water thrown into privy pails or ashtubs		11
Filth thrown on streets		5
Unclassified minor nuisances (to abate)		220
Total		5,679

TABLE II.

DETAILS RELATING TO CERTAIN WORKS CARRIED OUT IN THE ABATEMENT OF
NUISANCES AND TO INSPECTIONS MADE DURING 1909.

Length in yards of old drains removed	...	...	...	...	3,897
„ „ new „ constructed	...	...	...	...	4,982
New trapped gullies provided to drains	...	...	...	...	590
Combined privies and ashpits removed	{	privies	...	...	*65
		ashpits	...	...	*57
Cell-privies removed (in Benwell and Walker Districts)	...	...	...	...	100
Water-closets provided	...	...	...	...	†367
Pail-closets removed	...	...	...	...	124
Defective water-closets removed, and closets of better design substituted	...	...	...	...	57
Dry ash-tubs substituted for dry ash-pits where water-closets existed, and provided in cases where pail-closets, &c., have been replaced by water-closets	...	...	...	...	‡407
No. of drains tested	...	...	...	...	1,390
No. of tests of above drains made by smoke and water	...	...	...	...	1,871
No. of inspections from complaints made at office (verbally or by letter)	...	...	...	...	1,047
No. of tenement inspections made	...	...	...	...	26,894
No. of contraventions of Tenement Bye-laws for which notices have been served to obtain remedy	...	...	...	...	§2,074
Inspections of houses made from complaints received outdoors or nuisances discovered in the districts, including a large number of minor nuisances, such as choked drains and dirty yards, the abatement of which was accomplished at the time of visit, and without legal notice	...	...	...	...	7,032
Inspections to learn if works ordered were in progress	...	...	...	...	10,857
Common yards and courts in the worst localities specially visited on Friday afternoons and Saturday mornings to obtain weekly cleansing of same	...	...	...	...	34,062
Inspections after infectious disease	...	...	...	...	1,129
Supervisions of works in progress	...	...	...	...	3,799
Inspections of milk shops and ice creameries	...	...	...	...	2,530
„ bakehouses	...	...	...	...	516
„ offensive trades	...	...	...	...	799
„ wholesale margarine warehouses	...	...	...	...	84
„ as to limewashing of tenements	...	...	...	...	7,549
„ of schools	...	...	...	...	264

* Some ashpits have more than one privy attached.

† 13 of these were provided on premises where the accommodation was previously insufficient.

‡ Free tubs given by Corporation in each case.

§ In addition to this number, the District Inspectors have daily had premises cleansed on verbal order.

TABLE III.

SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, &c.,
DURING THE YEAR 1909.

NATURE OF COMPLAINT.	No. of Cases.	HOW DISPOSED OF.
Defective Drains.	2	Summonses issued. Magistrates' orders obtained to do the work, which was duly carried out.
Scullery Sink—Wastepipe untrapped and connected directly with drain.	1	Summons issued. Magistrates' order obtained to do the work, which was duly carried out.
Defective Yard Pavement.	2	Work done without the summonses being applied for.
Defective Rainspouts, causing dampness.	1	Ditto.
Choked Drains.	3	Ditto.
Accumulation of Refuse.	1	Nuisance abated without the summons being applied for.
Manure not regularly removed from Stable.	1	Ditto.
<i>Public Health Act, 1875, Sec. 36 :—</i>		
Houses without sufficient water closets, &c. (foul privies and ashpits, pail-closets, &c., to replace by proper water closets).	16	Work done without the summonses being applied for.
Insufficient Privies (to repair).	1	Work done without the summons being applied for.
Defective or insufficient number of ashtubs.	2	Tubs provided without the summonses being applied for.
<i>Newcastle-upon-Tyne Improvement Act, 1899, Sec. 46 :—</i>		
Want of water supply.	2	In one case, summons issued, but withdrawn on the water being supplied; and in the other, water provided before the summons was applied for.
<i>Carried forward ...</i>	32	

TABLE III —*Continued.*

SUMMARY OF LEGAL PROCEEDINGS ORDERED TO BE TAKEN BEFORE
THE MAGISTRATES FOR THE ABATEMENT OF NUISANCES, &c.,
DURING THE YEAR 1909.

NATURE OF COMPLAINT.	No. of Cases.	HOW DISPOSED OF.
<i>Brought forward</i> ...	32	
<i>Tenement Bye-laws :—</i>		
Contravention of Bye-law 12 (w.c. accommodation)	3	Accommodation provided without the summonses being applied for.
Contravention of Bye-law 16 (w.c. structure and apparatus).	16	Work done without the summonses being applied for.
Contravention of Bye-law 17 (maintenance in good order of privy structures and receptacles for filth).	8	Ditto.
Contravention of Bye-law 26 (refuse not properly removed).	1	Refuse removed without the summons being applied for.
Contravention of Bye-law 28 (keeping of fowls).	1	Fowls ceased to be kept without the summons being applied for.
Contravention of Bye-law 31 (limewashing of yards, passages, staircases, &c.)	125	In three cases summonses were issued and afterwards withdrawn on the work being done and costs paid by the defendants. In the remainder, the work was done without the summonses being applied for.
Contravention of Bye-law 32 (dirty rooms, walls and ceilings).	1	Room cleansed before the summons was applied for.
Contravention of Bye-law 33 (pavement of yards).	2	Work done without the summonses being applied for.
Contravention of Bye-law 34 (want of water supply for domestic purposes).	8	In two cases summonses were issued and afterwards withdrawn, on the water being supplied and costs paid by defendants. In the remainder, water was provided without the summonses being applied for.
<i>Total</i> ...	197	

TABLE IV.

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
New Milk ...	700	625 genuine (except that 1 contained boric acid in amount below the limit allowed). 1 deficient in milk-fat 6·6% 1 deficient in milk-fat 11·6% 1 deficient in milk-fat 16·6% 1 deficient in milk-fat 21·6% 1 deficient in milk-fat 10% 1 deficient in non-fatty solids 2·8% 1 deficient in milk fat 6·6% 1 deficient in milk-fat 6·6% 1 deficient in milk-fat 23·3% 1 deficient in milk-fat 10% 1 deficient in milk-fat 6·6% 1 deficient in milk-fat 6·6% 1 deficient in milk-fat 10% 1 deficient in milk-fat 16·6% 1 deficient in milk-fat 6·6% 1 deficient in milk-fat 3·3% 1 deficient in non-fatty solids 2·8% 1 deficient in milk-fat 6·6% 1 deficient in milk-fat 11·6% 1 deficient in milk-fat 3·3% 1 deficient in milk-fat 16·6% and in non-fatty solids 1·8% 1 deficient in milk-fat 10%	13 21 18 20 19 30 59 66 68 82 72 86 109 119 111 117 152 162 206 231 233 260	From one vendor. Summonses issued. Cases dismissed on defendant proving that he did not tamper with the milk. From one vendor. Summoned, and fined 20/- and costs in each case. Vendor summoned. Case dismissed on proof of warranty. Subsequent sample genuine. No action taken. From one vendor. Subsequent samples genuine. Cautioned. From one vendor. Summoned, and fined 40/- and costs in each case. From one vendor. Cautioned. From one vendor. Summonses issued. Cases dismissed on defendant proving that he did not tamper with the milk. Subsequent sample genuine. Vendor cautioned. Subsequent sample genuine. Vendor cautioned. From one vendor. Summoned, and fined 10/- and costs in each case. Vendor summoned, and fined 10/- and costs. From one vendor. Summoned. Fined 10/- and costs <i>re</i> No. 233. Case <i>re</i> 231 dismissed. Vendor summoned. Summons withdrawn on advice of Town Clerk, defendant paying costs.
Carried forward ...	700	Amount of penalties carried forward ...		£8 0 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	700	Amount of penalties brought forward ...		£8 0 0
New Milk (contd.) ...		1 deficient in non-fatty solids 2·3%	273	From one vendor. Summoned, and fined £3 and costs in each case.
		1 deficient in non-fatty solids 6·3%	295	
		1 deficient in milk-fat 16·6%	278	
				“ Dairy ” sample, taken experimentally, in connection with proceedings pending <i>re</i> samples 231 and 233.
				No proceedings taken <i>re</i> No. 278.
		1 deficient in milk-fat 10%	284	From one vendor. Summoned. Cases dismissed on defendant proving that he did not tamper with the milk.
		1 deficient in milk-fat 6·6%	304	
				Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 3·3%	285	From one vendor. Summoned. Cases dismissed on payment of costs. (Milk bought from vendor of samples 273 and 295.)
		1 deficient in non-fatty solids 3·5%	310	
		1 deficient in non-fatty solids 8·5%	318	
		1 deficient in milk-fat 8·3%	325	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 6·6%	336	Subsequent sample genuine. Vendor cautioned.
		1 deficient in non-fatty solids 8·7%	390	From one vendor. These samples were taken immediately following the hearing of case <i>re</i> samples 273 and 295, and, although the names of the vendors were given differently in the two cases, they were believed to be the same, and a letter of caution was sent.
		1 deficient in milk-fat 16·6%, and in non-fatty solids 4·2%	400	
				Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 10%	410	From one vendor. Cautioned (all previous samples being genuine.)
		1 deficient in milk-fat 5%	412	
		1 deficient in milk-fat 15%	421	
		1 deficient in milk-fat 1·6%	428	
Carried forward ...	700	Amount of penalties carried forward ...		£14 0 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	700	Amount of penalties brought forward ...		£14 0 0
New Milk (contd.) ...		1 deficient in milk-fat 6·6%	445	Subsequent samples genuine. Vendor cautioned.
		1 deficient in milk-fat 8·3%	450	Subsequent samples genuine. Vendor cautioned.
		1 deficient in milk-fat 6·6%	462	This was 1 of 3 samples taken in course of delivery, the other 2 of which were genuine. No proceedings taken.
		1 deficient in milk-fat 3·3%	503	From one vendor. Summoned, and fined £3 and costs in each case.
		1 deficient in milk-fat 13·3%	509	
		1 deficient in milk-fat 1·6%	512	Vendor cautioned.
		1 deficient in milk-fat 5%	525	From one vendor. Cautioned.
		1 deficient in milk-fat 11·6%	529	
		1 deficient in milk-fat 3·3%	531	Subsequent samples genuine. Vendor cautioned.
		1 deficient in milk-fat 3·3%	540	Subsequent samples genuine. No action taken.
		1 deficient in milk-fat 16·6%	551	From one vendor. Summoned, and fined 10/- and costs in each case.
		1 deficient in milk-fat 10%	555	
		1 deficient in milk-fat 5%	554	Subsequent samples genuine. Vendor cautioned.
		1 deficient in milk-fat 6·6%	596	Subsequent samples genuine. Vendor cautioned.
		1 deficient in non-fatty solids 2·8%	607	From one vendor. No action taken.
		1 deficient in non-fatty solids 2·6%	613	
		1 deficient in non-fatty solids 3·5%	608	From one vendor. No action taken.
		1 deficient in non-fatty solids 2·5%	614	
		1 deficient in milk-fat 20%	633	Summoned, and fined 20/- and costs.
		1 deficient in milk-fat 8·3%	635	Summoned, and fined 10/- and costs.
		1 deficient in milk-fat 13·3%	663	From one vendor. Summoned, and fined 5/- (without costs) in each case.
		1 deficient in milk-fat 16·6%	664	
		1 deficient in milk-fat 3·3%	682	Subsequent sample genuine. Vendor cautioned.
Carried forward ...	700	Amount of penalties carried forward ...		£23 0 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	700	Amount of penalties brought forward ...		£23 0 0
New Milk (<i>contd.</i>) ...		1 deficient in milk-fat 3·3%	775	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 20%, and contained at least three parts per 100,000 of formaldehyde, added as a preservative.	776	Vendor summoned, and fined £5 and costs. (See also p. 58.)
		1 deficient in milk-fat 5%	786	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 3·3%	787	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 10%	861	Vendor summoned. Case dismissed on defendant proving that he did not tamper with the milk.
		1 deficient in non-fatty solids 3·3%	866	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 10%	907	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 6·6%	985	Vendor summoned. Case dismissed on defendant proving that he did not tamper with the milk.
		1 deficient in milk-fat 3·3%	1096	Subsequent sample genuine. Vendor cautioned.
		1 deficient in milk-fat 3·3%	1097	Summons issued, and afterwards withdrawn, on advice of Town Clerk, defendant paying costs.
		1 deficient in milk-fat 3·3%	1098	From one vendor. Summonses issued, and afterwards withdrawn, on advice of Town Clerk, defendant paying costs.
		1 deficient in milk-fat 1·6%	1100	
		1 deficient in milk-fat 3·3%	1101	Subsequent sample genuine. Vendor cautioned.
Skimmed Milk	14	7 genuine.		From one vendor. Summoned, and fined 10/- and costs in each case.
		1 deficient in milk-solids 3·1%	149	
		1 deficient in milk-solids 12·5%	158	
Carried forward ...	714	Amount of penalties carried forward ...		£29 0 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS, DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	714	Amount of penalties brought forward ...		£29 0 0
Skimmed Milk (<i>contd.</i>)		1 deficient in milk-solids 15·5%	165	Subsequent sample genuine. No proceedings taken.
		1 was genuine Milk—not Skimmed Milk	166	No action taken.
		1 deficient in milk-solids 8·6%	169	Subsequent sample genuine. No proceedings taken.
		1 deficient in milk-solids 40·9%	931	Vendor summoned, and fined £5 and costs.
		1 contained boric acid 0·07%	969	From one vendor. Summoned, and fined 20/- and costs in each case.
		1 contained boric acid 0·07%	984	
Condensed Milk	7	All genuine.		
Cream ...	4	All genuine (except that all contained boric acid in amounts varying from 0·10% to 0·26%).		
Butter ...	119	105 genuine (except that 19 contained boric acid in amounts below the limit allowed).		
		1 certified to be Margarine, and to contain boric acid 0·12%*	173	Formal sample taken (<i>see</i> "184").
		1 certified to be Margarine, and to contain boric acid 0·11%	181	As statement of hired assistant and that of shopman did not agree as to the article demanded, and as both the sample itself and the bulk in shop were marked "Margarine," no proceedings were taken.
Carried forward ...	844	Amount of penalties carried forward ...		£36 0 0

* Informal Sample.

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	844	Amount of penalties brought forward ...		£36 0 0
Butter (contd.) ...		1 certified to be Margarine, and to contain boric acid 0·11%	184	Vendor summoned, and fined 5/- and costs. (See also page 58).
		1 certified to be Margarine, and to contain boric acid 0·12%.*	237	Formal sample could not be obtained.
		1 certified to be Margarine, and to contain boric acid 0·10%.*	239	Sample accepted in error by hired assistant. Marked "Margarine." No further action therefore taken.
		1 certified to be Margarine, and to contain boric acid 0·26%.*	253	Formal sample taken which was genuine.
		1 certified to be Margarine, and to contain boric acid 0·09%.*	258	Formal sample could not be obtained.
		1 certified to be Margarine, and to contain boric acid 0·35%.	408	Vendor summoned, and fined £5 and costs.
		1 certified to be Margarine, and to contain boric acid 0·10%.	409	Vendor summoned, and fined £2 and costs. (See also p. 58.)
		1 contained 3·8% excess of water.	465	Vendor cautioned.
		1 contained 0·43% excess of water.	594	No action taken.
		1 certified to be Margarine, and to contain boric acid 0·12%.	681	Purchased at shop kept by a widow in a very small way of business. Sample stated to have been served in mistake by a person temporarily employed during illness of shopkeeper. The latter was cautioned.
		1 contained 0·6% excess of water.	951	Vendor cautioned.
		1 certified to be Margarine, and to contain boric acid 0·20%.	1072	Vendor summoned, and fined £5 and costs. (See also p. 58.)
Carried forward ...	844	Amount of penalties carried forward ...		£48 5 0

* Informal Samples.

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	844	Amount of penalties brought forward ...		£48 5 0
Margarine ...	25	All genuine (except that 23 contained boric acid in amounts below the limit allowed).		
Mustard ...	12	7 genuine.		
		1 contained an admixture of wheat flour.*	195	Further sample taken. (See No. 222.)
		1 contained an admixture of wheat flour.*	203	Formal sample taken. (See No. 220.)
		1 contained wheat flour, at least 30%.	220	Vendor summoned. Case dismissed, the Magistrates being of opinion that the label on the tin was a sufficient declaration.
		1 contained wheat flour, at least 15%.	221	Vendor summoned. Case dismissed, the Magistrates being of opinion that the label on the tin was a sufficient declaration.
		1 contained wheat flour, at least 5%.*	222	No action taken.
Syrup	1	Consisted chiefly of glucose syrup.*	282	No action taken.
Tartaric Acid...	7	2 genuine.		
		1 contained mineral matter 0·28%.*	435	Formal sample taken. (See No. 518.)
		1 contained mineral matter 0·18%.*	438	Formal sample taken, which was genuine.
		1 contained mineral matter 0·40%.*	444	Formal sample taken. (See No. 519.)
		1 contained calcium sulphate 0·28%.	518	Vendor cautioned.
		1 contained calcium sulphate 0·38%.	519	Vendor cautioned.
Gregory's Powder ...	7	4 genuine.		
		1 prepared with carbonate of magnesia, instead of calcined magnesia.*	482	Sample so declared on label. No further action taken.
Carried forward ...	896	Amount of penalties carried forward ...		£48 5 0

* Informal Samples.

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	896	Amount of penalties brought forward ...		£48 5 0
Gregory's Powder (contd.) ...		1 prepared with carbonate of magnesia, instead of calcined magnesia.*	491	Formal sample taken. (See No. 522.)
		1 contained 67% carbonate of magnesia, instead of calcined magnesia.	522	Vendor cautioned.
Spirits of Nitre	10	7 genuine.		
		1 deficient in ethyl nitrite 32.6%.*	485	Formal sample taken. (See No. 521.)
		1 deficient in ethyl nitrite 44%.	521	Vendor cautioned.
		1 deficient in ethyl nitrite 37%.*	997	Formal sample taken, which was genuine.
Sago ...	12	2 genuine.		
		1 certified to be entirely tapioca.*	699	Formal sample taken. (See No. 854.)
		1 certified to be entirely tapioca.*	700	Formal sample taken which was genuine.
		1 certified to be entirely tapioca.*	701	Formal sample taken. (See No. 856.)
		1 certified to be entirely tapioca.*	702	Formal sample could not be obtained.
		1 certified to be entirely tapioca.*	705	Formal sample taken. (See No. 857.)
		1 certified to be entirely tapioca.*	707	Formal sample taken. (See No. 858.)
		1 certified to be entirely tapioca.	854	No action taken.
		1 certified to be entirely tapioca.	856	No action taken.
		1 certified to be entirely tapioca.	857	No action taken.
		1 certified to be entirely tapioca.	858	No action taken.
Whisky ...	8	7 genuine.		
		1 contained 0.3% excess of water.	1087	Vendor cautioned.
Lard ...	8	All genuine.		
Vinegar ...	12	All genuine.		
White Pepper	9	All genuine.		
Black Pepper	4	All genuine.		
Carried forward ...	959	Amount of penalties carried forward ...		£48 5 0

* Informal Samples.

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rota- tionary No. of sample.	Proceedings taken and result.
Brought forward ...	959	Amount of penalties brought forward ...		£48 5 0
Ground Ginger	9	All genuine.		
Tapioca ...	5	All genuine.		
Semolina ...	7	All genuine.		
Ground Rice ...	18	All genuine.		
Corn Flour ...	10	All genuine.		
Arrowroot ...	10	All genuine.		
Baking Powder	10	All genuine.		
Rice	2	Both genuine.		
Ground Almonds	10	All genuine.		
Tea	2	Both genuine.		
Table Salt ...	2	Both genuine.		
“Vegetable” Butter”	2	Both genuine.		
Jams	4	All genuine.		
Toffee ...	2	Both genuine.		
Bride’s Cake ...	1	Genuine.		
German Sausage	1	Genuine (except that it con- tained 0·37% of boric acid).		
Camphorated Oil	6	All genuine.		
Magnesia ...	1	Genuine.		
Paregoric ...	10	All genuine.		
Syrup of Rhu- barb	6	All genuine.		
Tincture of Rhubarb	6	All genuine.		
Cream of Tar- tar	12	All genuine.		
Carried forward ...	1095	Amount of penalties carried forward ...		£48 5 0

TABLE IV.—*Continued.*

FOOD AND DRUGS ADULTERATION ACTS.
SAMPLES TAKEN FOR ANALYSIS DURING THE YEAR 1909.

Articles taken for Analysis.	Total No. of samples taken.	Result of Analysis.	Rotational No. of sample.	Proceedings taken and result.
Brought forward ...	1095	Amount of penalties brought forward ...		£48 5 0
Glycerine ...	6	All genuine.		
Olive Oil ...	6	All genuine.		
Flowers of Sulphur ...	8	All genuine.		
Rum ...	6	All genuine.		
Beer ...	6	All genuine.		
TOTAL ...	1127	Total amount of Penalties		£48 5s. 0d.

PROCEEDINGS TAKEN WITH RESPECT TO OFFENCES OTHER THAN ADULTERATION.

Offence.	No. of Sample.	Proceedings taken, &c.
<i>Margarine Act, 1887.</i> Margarine sold as Butter, delivered to purchaser in a plain paper.	184	Case dismissed on payment of costs. (See also page 54.)
<i>Margarine Act, 1887.</i> Margarine sold as Butter, delivered to purchaser in a plain paper.	409	Vendor fined 40/- and costs. (See also page 54.)
<i>Margarine Act, 1887.</i> Bulk in shop not labelled "Margarine."	409	Case dismissed, defendant paying costs.
<i>Margarine Act, 1887.</i> Sample delivered to purchaser in a plain paper.	1072	Case dismissed, defendant paying costs. (See also page 54.)
<i>Sale of Food and Drugs Act, 1899, Sec. 9.</i> Name and address of vendor not inscribed upon his milk-cans.*	776	Fined 10/- and costs. (See also page 52.)
Name and address of vendor not inscribed upon his milk-cans.*	...	Fined 10/- and costs.
		Total Penalties, £3 0s. 0d.

* In 38 similar cases, the milk-vendors were cautioned. In these two cases, in which proceedings were taken, the vendors had been cautioned previously.

TABLE V.

ADMINISTRATION OF THE FACTORY AND WORKSHOP ACT, 1901,
IN CONNECTION WITH FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES
AND HOMEWORK, DURING THE YEAR 1909.

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR
INSPECTORS OF NUISANCES.

PREMISES.	Number of Inspections.	Number of Written Notices.	Number of Prosecutions.
Factories (Including Factory Laundries.)	419	515	Nil.
Workshops (Including Workshop Laundries.)	4,675		
Workplaces (Other than Outworkers' premises included in Part 3 of this Report.)	307		
Total	5,401	515	.....

2.—DEFECTS FOUND.

PARTICULARS.	Number of Defects Found.	Number of Defects Remedied.	Number of Defects referred to H.M. Inspector.	Number of Prosecu- tions.
<i>Nuisances under the Public Health Acts:—*</i>				} Nil.
Want of cleanliness	453	453	—	
Want of ventilation	11	11	—	
Overcrowding	15	15	—	
Want of drainage of floors	—	—	—	
Other nuisances	41	41	—	
†Sanitary accommodation {insufficient	42	42	—	
{unsuitable or defective	122	122	—	
{not separate for sexes	5	5	—	
<i>Offences under the Factory and Work- shop Act:—</i>				
Illegal occupation of underground bakehouse (s. 101)	Nil.	—	—	
Breach of special sanitary require- ments for bakehouses (ss. 97 to 100) }	Not kept included	separately, in above.	21	
Other offences (Excluding offences relating to out- work which are included in Part 3 of this Report.)	48	48	21	
Total	737	737	21	

* Including those specified in sections 2, 3, 7 and 8, of the Factory and Workshop Act as
remediable under the Public Health Acts.

† Sec. 22 of the Public Health Acts Amendment Act, 1890, is in force. The standard fixed by the
Sanitary Accommodation Order (No. 89) of 4th February, 1903, is followed as a model.

TABLE V.—Continued
3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.											OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.			
	Lists received from Employers.							Number of Addresses of Outworkers received from other Councils. (8)	Number of Addresses of Outworkers forwarded to other Councils. (9)	Prosecutions.		Number of Inspections of Outworkers Premises. (12)	Instances. (13)	Notices served. (14)	Prosecutions. (15)	Instances. (16)	Orders made (Section 110.) (17)	Prosecutions (Sections 109, 110.) (18)
	Twice in the Year.		Once in the Year.			Failing to keep, or permit inspection of Lists. (10)	Failing to send to Lists. (11)											
	Lists.† (2)	Outworkers.†		Lists. (5)	Outworkers.†													
		Con-tractors (3)	Work-men. (4)		Con-tractors (6)					Work-men. (7)								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
Wearing Apparel-Making ...	50	...	208	26	4	100	1	33	Nil.	27	435	37	* 48	Nil.	Nil.	Nil.	Nil.	
Furniture and Upholstery ...	12	12	...	1	2	...	...	...	...	...	15	...	...	...	...	...	...
Total ...	62	12	208	27	6	100	1	33	...	27	450	37	48	...	...	...	...

NOTE.—Columns (3), (4), (6), and (7)—Employers seldom state whether their Outworkers are “Contractors” or “Workmen,” hence the numbers given above may not be properly divided.

* The Notices were served upon the *Outworker* in each case, and were immediately complied with.

† The figures in columns 2, 3, and 4 are the *total* number of lists (received from employers who sent them both in February and August as required by the Act) and of the entries of names of outworkers in those lists. They are, therefore, double of the number of such employers and (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name is often repeated.

TABLE V.—Continued.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.						Number.
Important classes of workshops, such as workshop bake-houses may be enumerated here.	{	Factories	...	...	...	649
		Workshops	...	...	...	1,132
		Domestic Workshops	...	...	...	187
		Workplaces	...	...	...	127
		Laundries	...	...	...	59
		Bakehouses	...	...	...	112
Total Number of Factories and Workshops on Register ...						2,266

5.—OTHER MATTERS.

CLASS.					Number.
Matters notified to H.M. Inspector of Factories:—					
Failure to affix Abstract of the Factory and Workshop Act (sec. 133)	...	...	...	...	21
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).	{	Notified by H.M. Inspector	...		66
		Reports (of Action taken) sent to H.M. Inspector	...	...	66
Other:—					
Underground Bakehouses (s. 101):—					
Certificates granted during the year	...	...	...	...	Nil.
In use at the end of the year	...	...	...	...	13

TABLE VI.

REGISTERED COMMON LODGING HOUSES.

SUMMARY OF WORK DONE AND VISITS MADE DURING THE YEAR 1909.

Number of Houses on the register at the end of the year	62
Applications for registration (granted)	1
New houses registered	2
Houses closed	3
Inspections made in the day-time	10,445
„ „ night-time	675
Notices served { <i>re</i> washing of bed clothes 242 } { „ limewashing of houses 120 }	362
Contraventions of Bye-laws :—	
<i>Re</i> Cleaning and ventilation of houses	7
„ Removal of liquid filth from rooms	2
Want of water supply	1
Bed clothes not properly “aired” during prescribed hours	4
Lavatory basins defective or insufficient in number	2
Bedding dirty or defective	2
Cleansing of yards and passages	3
Structural defects in houses	19
Defective water-closets and drains	17
Choked drains, water-closets, &c.	40
Defective roofs and spouts	16
Defective yard pavement	1
Want of, or defective, ash-tubs	8
Offensive accumulations	5
Dirty water-closets	3
Deaths reported (non-infectious disease)	3

† Premises never used as a common lodging house, and therefore not placed upon register.

* In these cases the registration was granted in 1908, subject to certain alterations to premises, which were not completed until 1909, in which year the houses were added to the register.

TABLE VI_A.

LODGERS OCCUPYING COMMON LODGING HOUSES IN THE CITY
DURING THE YEAR 1909.

			Year 1909.	Corresponding Nos. for Year 1908.
Average number of Lodgers per night	...	...	1,430	1,566
Highest number on any one night	...	...	1,511	1,672
Lowest " " "	...	...	1,330	1,470
Number of Lodgers for whom accommodation was provided in the Common Lodging Houses of the City at the end of the year	...	...	2,154	2,233

REPORT OF THE VETERINARY OFFICER.

The Report of the Veterinary Officer and Inspector of Meat, Provisions, &c., is given below :—

TO THE MEDICAL OFFICER OF HEALTH.

SIR,

I have the honour to present this my third annual Report concerning the duties performed in my section of the Health Department during the year ending December 31st, 1909. Owing to certain of the scheduled diseases of animals being communicable to man, and consequently having an almost direct bearing on matters concerning Public Health, I have included in my report duties performed as Veterinary Inspector under the Diseases of Animals Acts.

DISEASES OF ANIMALS ACTS.

The animals of the City and County of Newcastle-upon-Tyne have remained free from contagious disease (as defined by the Acts) during the past twelve months. Besides horses, cattle, sheep, pigs, and dogs within the city, animals which have been subjected to regular and frequent inspection include those stationed at, or passing through the Cattle and licensed Pig Lairs; the Railway (animals' arrival) Docks; the Horse and Cattle Fairs on Town Moor; the Horse and Cattle Fairs in Cattle Markets; the weekly Cattle, Sheep, and Pig Markets; Dog Shows; and the Quayside (exportation of horses).

Cattle and Licensed Pig Lairs.—There are thirty cattle and licensed pig lairs within the city, and eleven hundred and seventy visits have been made during the year. The premises have been found cleansed and disinfected satisfactorily.

The Railway Cattle Docks have been inspected regularly (one hundred and twenty two visits having been made), and have always been found cleansed and disinfected satisfactorily. The same remarks apply to the railway waggons.

Movement of Swine.—During the year three hundred and sixty licences have been granted for the removal of swine from the licensed pig lairs to the cattle market, twelve thousand three hundred licences have been granted for the removal of swine from the cattle market to the slaughter-houses within and outside the City, and ninety-three licences have been granted for the removal of swine into the Byker and Walker Piggeries Area for store, and out of it for slaughter. The total number of licences granted during the year exceeds that of the previous year by two thousand three hundred and thirty-eight.

Cattle Markets.—The following Table shows the number of cattle, &c., exposed for sale in the Newcastle Cattle Market during the year, and the number for a year's period ten and twenty years ago respectively :—

TABLE No. 1.

YEAR.	CATTLE.	CALVES.	SHEEP.	SWINE.
1909	86,729	6,203	316,273	30,631
1899	97,001	7,751	358,163	49,321
1889	125,791	9,053	325,030	40,936

On glancing over the figures shown in the above table, it would appear as though the Cattle Market was on the road to extinction ; but in reality that is not so, for there are nearly as many home-fed fat cattle exhibited in the market to-day as there were 20 years ago. In the year 1889, no fewer than 76,683 foreign cattle were landed in this City, and were free to enter the markets. Of that number nearly 36,000 were from Denmark, the remainder coming from United States, Canada, Norway, and Sweden.

In the early part of the year 1892, cattle from Denmark, Norway and Sweden, were prohibited from landing in this country, and in the latter part of the same year Canadian cattle

had to be slaughtered immediately on landing. The restrictions have not been removed. American firms have risen to the occasion, with the result that they now slaughter large numbers of cattle in America, dress them, and pack and export their carcasses to this country. With the use of large vessels, splendidly equipped with cold storage plant, they are able to send larger numbers of cattle per vessel in the form of carcasses (meat) than in former years when they came alive—as will be seen under the heading of Foreign Meat.

Notwithstanding these facts, the Newcastle Cattle Market, although to-day competing with a larger number of auction marts in various parts of the country than formerly, still occupies the position of second greatest fat cattle market in the Kingdom.

Vessels from other parts of the Kingdom.—Frequent visits have been paid to the vessels arriving coastwise, the vessels being boarded and all the animals inspected prior to disembarkation. Regular inspection of the vessels after the landing of the animals has been carried out, and the vessels have been found cleansed and disinfected satisfactorily.

Exportation of Horses.—The number of old, worn out, or workably unsound, &c., horses that have been shipped from Newcastle Quay to go to the Continent for slaughter for human consumption during the past year is 2,619.

Whenever practicable these animals are examined prior to embarkation, not only for the detection of diseases, but also with a view to the prevention of cruelty. On several occasions these animals were shipped at midnight in total darkness, when it was impossible for a proper inspection to be made. The fitting up of the vessels for carrying horses is not quite satisfactory, there being in most cases insufficient room for a man to pass along in front of the horses when stalled. There should be no less than a three feet passage way in front of all horses when on board.

No matter how good the accommodation may be, and, although the animals may be perfectly sound and strong, there is always the possibility of a certain amount of suffering amongst the animals as a result of injury through the pitching of the vessel in stormy weather. I have witnessed this on board a transport carrying sound troop horses, where one lurch of the vessel was sufficient to throw down several of the animals, killing one outright, besides causing fractured limbs in others, necessitating prompt slaughter. Amongst the many difficulties a veterinary officer has to encounter in connection with this traffic are :—

- (a) The uncertain time of arrival of the horses to be examined.
- (b) The shipping of animals in the dark.
- (c) Busy traffic on the quay being an obstruction to inspection.
- (d) Absence of suitable place in which to conduct the examinations.
- (e) Absence of suitable sheds or shelter in which to rest, feed, and water the animals after examination and prior to embarkation.

Thanks to the Exportation of Horses Order of 1910, issued by the Board of Agriculture and Fisheries, which comes into operation on June 1st next, certain of these difficulties will be removed.

During the year a person was convicted for bringing a lame horse to the quay for shipment, which the veterinary officer considered quite unfit to walk. The animal was removed in the owner's ambulance, and afterwards destroyed. Later in the year, a man (employed by the same person to lead to the quay a lame horse, which was considered by the

veterinary officer unfit to embark but quite fit to walk home) was proceeded against by a local protection of animals society on a charge of causing cruelty. When the case was heard the veterinary officer attended the court. The man charged was one of the unemployed, not only ignorant of horses, but apparently innocent as to the cruelty, besides being unaware of the presence of the veterinary officer in court, whose only object was to defend the innocent and defenceless. In support of the charge, the officer of the society and the police constable both failed in evidence to locate the seat of lameness. Immediately after the lameness and the condition of the animal was described, the magistrates promptly dismissed the case.

Tuberculosis and other diseases.—Cases have been found to exist both in the cattle lairs and cattle docks, &c., as will be seen in the following table :—

TABLE No. 2.

	Tuber- culosis.	Other Causes.			
	Dead.	Alive.	Dead.		
	Cow	Cows	Cows	Heifer	Sheep
Live and dead animals sent from places within the city (other than registered cowsheds and cattle markets), with owners' consent for destruction.	1	2	10	1	1

THE DAIRIES, COWSHEDS AND MILKSHOPS ORDER,
1885-1899.

There are forty-one cow-keepers within the City who possess a total of five hundred and twenty-seven milch cows. Five hundred and thirty-seven visits to the cowsheds and dairies have been made by the inspectors during the past twelve months. During the year two persons have given up the business of cow-keeping. It has been necessary, on several occasions, to request the milkers not only to cleanse

the udders and teats before proceeding to draw milk, but also to attend to personal cleanliness.

DISEASE AMONGST COWS.

Cases have arisen where it was found necessary to have certain cows isolated from the milking herd, five of them being removed from the premises and destroyed, as compared with six in the previous year. (See Table No. 3.) It will be seen that of the cows within the city, seven were found showing signs of tuberculosis, five of them with the disease affecting the udder. At the request of the Medical Officer, a small dairy herd (from whose milk a sample was taken and found tuberculous on arrival within the city) was examined, with the result that two of the animals were found showing clinical symptoms of tuberculous mastitis. The owner readily accepted advice and promptly ceased milking these animals, and removed them from the herd. But such a procedure is incomplete. Legislation should require every cow showing tuberculosis of the udder to be promptly slaughtered; and no cow should be permitted to be used for the production of milk for human consumption unless it has been tuberculin-tested and officially certified free from the disease. Were such requirements made compulsory by legislation, the public would have some measure of guarantee that the milk drawn from dairy cows was free from the germs of a dangerous disease. Moreover, such requirements would be compelling one of the biggest and most important steps towards combating the spread of the disease amongst stock, and thus assisting in the production of a disease-free meat supply, particularly if accompanied by an unmistakable reform in hygiene—as compared with that practised at the present time owing to the absence of sound compulsory legislation.

Besides tuberculosis other diseases affect cows, which, through the milk-supply, are a danger to the consumer. Such diseases, particularly those of the udder, received attention.

TABLE No. 3.

DAIRY COWS WITHIN THE REGISTERED COWSHEDS OF THE CITY AND
COUNTY OF NEWCASTLE-UPON-TYNE DURING THE YEAR 1909.

No. of Cow-keepers.	No. of Cows.	No. of Cows found affected with Tuberculosis.		No. of Cows affected with other diseases.		No. of Cows whose milk supply was stopped at the request of the Veterinary Officer.
		Of Udder.	Other than the Udder.	Of Udder.	Other than the Udder.	
41	527	5	2	4	1	
No of Cows destroyed.				No. of Cows disposed of in other ways than by destruction.		
Sent to Knackers by Owners as having died.		Destroyed by request of Veterinary Officer.				
16		5 (Tuberculosis)				

MEAT, PROVISIONS, FISH, FRUIT, &c.

The number of animals slaughtered within the City during the past twelve months is, approximately :—Cattle, 19,682 ; sheep, 99,476 ; calves, 3,444 ; and swine, 13,144. The total number of carcasses condemned and destroyed for tuberculosis within the City, during the year 1909, is the largest on record.

During the year 1909, the Newcastle, Gateshead, and District Butchers' Cattle Insurance Society paid to its own members £653 15s. 8d. as compensation in respect of their claims for carcasses condemned for tuberculosis. This is an increase of £98 9s. 10d. on the amount paid during 1908, and an increase of £212 0s. 4d. on the amount paid during 1907. Such figures serve to demonstrate the increasing demands made upon the financial resources of the local Butchers' Society, notwithstanding the fact that during the year only 13,396 bullocks and heifers were insured, being a decrease of 1,023 on the previous year, and 3,287 fewer than during the year 1907.

Of the total number of carcasses condemned for tuberculosis within the City during the year 1909, nearly one half are accounted for by the sixty carcasses of insured cattle

belonging to members of the local Butchers' Society. Further, the number of carcasses of insured cattle belonging to members of the local Butchers' Society condemned last year is the largest on record, whilst the number of animals insured during the same period is the smallest since the year 1899, when 8,376 cattle, including 306 cows, were insured, and 13 cattle, including 4 cows, were condemned.

Inspection can never be complete until it is possible to examine the whole of the carcasses and organs at one centre, instead of having to pay visits to premises scattered widely over a very large City. Again, those butchers who are in the habit of buying questionable animals direct from the farm, or those who are in the habit of buying old cows—particularly when uninsured—are tempted to have resort to the fine art of stripping whenever they find evidence of tuberculosis, no matter to what extent the membranes are affected; *e.g.*, one afternoon in the early part of last year, on entering a butcher's shop at the west end of the City, it was noticed that, amongst several quarters of beef, one of them was found hanging with the internal surface facing the wall. On having the quarter turned towards the light and examining it, there were found several small tuberculous deposits in the flank region. Nearly the whole of the peritoneum had been stripped off. On a butcher's block half a fore quarter was found exposing an unhealthy gland, and in other parts of the shop pieces of meat belonging to the carcass were found. The premises were searched. Down stairs, in a dark cellar, several organs and fat were found, and in a cupboard (which was almost excluded from view by means of a table and sausage machine) were found the liver, part of the diaphragm, and the peritoneum, all covered with masses of tuberculous deposit. The meat from the head and other parts were cut ready to go through the sausage mincing machine. The whole collection was seized and destroyed, and the butcher was convicted and fined £20 and costs, with the alternative of three months in prison.

TABLE No. 4.

NUMBER OF VISITS AND INSPECTIONS OF PREMISES DURING THE YEAR 1909.

Slaughter Houses.	Wholesale and Retail Meat Shops.	Sausage Factories.	Fish Markets.	Meat and Provision Markets.	Fruit and Vegetable Markets.
5,897	949	43	686	485	448

FOREIGN MEAT.

During the year 1909 large consignments of foreign meat have been examined.

The following tables show the quantities discharged from vessels at the Quayside :—

TABLE No. 5.

FRESH.

LAMB.	BEEF.	VEAL.	Wea- sands.	PORK.
Casks.	Casks.	Casks. Car- casses.		Casks.
14	Cheeks ... 68 Udders ... 8 Meat ... 29 Offal ... 21 Sides ... 1,355	... 41	7	Feet ... 3,077 Maws ... 1,283 Tongues ... 178 Steaks ... 51 Heads ... 2,958 Carcasses ... 916 Sides ... 141,253

TABLE No. 6.

FROZEN AND CHILLED.

TRIPE	OFFAL	LAMB.	MUTTON.	FROZEN.	CHILLED.
Cases.	Cases.	Carcasses.			Fore- qrs. Hind- qrs.
552½	5,113	7,097	Carcasses 90,210 Legs ... 75 Shoulders 80 Hearts ... Cases. 150 Kidneys ... 100 Plucks ... 120	Fore-qrs. 42,195 Hind-qrs. 12,812 Cases. Hearts ... 272 Tails ... 252 Skirts ... 252 Tongues ... 222 Livers ... 373 Flitches ... 63	2,480 2,250

The following were exported from this country at the expense of the sender for non-compliance with the requirements of the Foreign Meat Regulations :—

TABLE No. 7.

PIGS MAWS.	WEASANDS.	OX CHEEKS.
Barrels.	Barrels.	Barrels.
9	1	2

The following were seized and destroyed according to the Unsound Food Regulations :—

TABLE No. 8.

BEEF.	WEASANDS.	UDDERS.
	Barrel.	Barrel.
2 Sides (Tuberculosis).	1	1

SLAUGHTER HOUSES.

About two years ago there were one hundred and thirty-two slaughter-houses licensed within the City and County of Newcastle-upon-Tyne. Owing to a large number of them being considered insanitary and quite unfit for the purpose, besides being scattered about the City, chiefly in back streets in close proximity to dwellings, the Sanitary Committee decided not to re-license them. During the year 1909, there were one hundred and eight slaughter-houses licensed. These are arranged in five groups, situate at Byker, Stepney, Benwell, Scotswood Road, and Dispensary Lane, with the exception of fourteen individual slaughter-houses which are scattered over various parts of the City. Towards the latter part of the year under report, the Sanitary Committee decided to

grant only a three months licence for the Dispensary Lane group, which is the largest, consisting of forty slaughter-houses. After surveying the premises, and giving the owners three months in which to decide to bring them up to present-day requirements, the Sanitary Committee — after such requirements not being complied with,—finally decided not to re-llicence the premises.

During the early part of last year, the new public slaughtering hall stood practically empty. Towards the latter part of the year, however, the number of butchers using it rapidly began to increase, and it is the opinion of many—and these opinions are rapidly increasing—that a properly equipped abattoir in close proximity to a cattle market would be decidedly better and more convenient to the butcher than those obsolete, dark and insanitary sheds found in the back streets of many cities.

The following carcasses, &c., have been destroyed as being unfit for human consumption during the year 1909 :—

TABLE No. 9.
THE FOLLOWING CARCASSES, &C., HAVE BEEN DESTROYED AS BEING UNFIT FOR HUMAN CONSUMPTION, DURING
YEAR 1909.

	Carcasses.					Plucks.			Lungs.			Ox Hearts.			Livers.			Kidneys.		Heads.		Ox Tails.	lbs.	Sausage Skins.
	Beef.	Veal.	Mutton.	Lamb.	Pork.	Pig.	Sheep.	Calf.	Ox.	Sheep.	Pig.	Ox Hearts.	Ox.	Sheep.	Pig.	Ox.	Sheep.	Ox.	Pig.	Ox.	Pig.	Ox Tails.	lbs.	Sausage Skins.
Tuberculosis ...	104½	5	...	...	21	15	3	97	...	...	...	94	95	...	...	186	94	...	93	...	...	...	...	...
Swine Erysipelas ...	...	...	...	...	14	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant Catarrh ...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyæmia ...	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	2	...	...	1	...	...	...	...	...
Abscesses ...	...	...	...	...	...	...	...	1	...	...	...	2	6	...	...	...	...	...	...	...	...	...	...	...
Jaundice ...	...	...	...	...	2	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	...
Congestion ...	...	...	1	...	...	14	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pleurisy ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia (including Septic) ...	...	...	3	...	3	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis ...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis ...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Emaciation and Dropsy ...	1	1	13½	...	...	...	...	1	...	...	...	1	1	...	...	2	...	1	...	...	...	...	...	...
Pyæmic Arthritis ...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Echinococcus ...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
Imperfect Bleeding ...	1	4	34	...	2	...	2	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
Asphyxia ...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gastritis ...	1	...	...	...	...	...	...	1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
Pyrexia ...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
Peritonitis ...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Natural death and died in transit ...	1	6	24	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Traumatism ...	154 lbs.	...	3 + 112 lbs.	...	1 + 10 lbs.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Decomposition ...	13 qrs. + 168 lbs.	6	9½ + 7 lbs.	...	1½	...	...	...	...	...	...	...	43 lbs.	...	...	160 lbs.	1	...	108	...	...	262	31	...

year 1909 :—

TABLE No. 10.

[illegible]

PROSECUTIONS DURING 1909.

For exposing for sale unsound fish, one person was fined £10 and costs.

For failing to cleanse their slaughter-houses, two persons were each fined 20/- and costs.

One person was fined £20 and costs for exposing for sale diseased meat.

One person was fined 20/- and costs for causing cruelty to a horse intended for exportation, and 20/- and costs on a second information, for a similar offence.

I have the honour to be, Sir,

Your obedient Servant,

THOMAS PARKER, F.R.C.V.S.,

Veterinary Officer,

Inspector of Meat, Provisions, &c.

Health Department,

Town Hall,

Newcastle-upon-Tyne,

May 3rd, 1910.

INSANITARY DWELLINGS DEALT WITH
UNDER THE NEWCASTLE-UPON-TYNE IMPROVEMENT ACT, 1882, SEC. 32.

TENEMENT HOUSES.

				No. of	
				Houses.	Holdings.
Demolished.—White House Cottage, Walker	...	...	...	1	2
Closed.—19, River Street	...	...	...	1	1
190, 194, 202, 208, Scotswood Road (basements)	...	...	...	4	4
Made Habitable.—10, Leighton's Yard	...	...	...	1	1
West Pit Cottages, Paradise	...	...	...	1	2
Alterations in Progress.—8, Brough's Buildings	...	...	...	1	1
Alterations made, but { 2, 3, 4, Wilson's Yard, and	not satisfactory ... {	13, Wall Knoll...	...	4	15
Surveyed by Insanitary Dwellings { Diamond Row		...	...	32	32
Sub-Committee after close of { Hemel's Row	year—under consideration ... {	Battlehill Houses	...	14	14
Under notice to close.—Churchill Cottages		...	...	18	20
Nothing done.—Vale Cottage, Jesmond Vale	...	...	...	15	38
	...	...	...	1	1

CELLAR DWELLINGS.

Closed	{ 7, 16, Churchill Street	...	...	2	2
	{ 83, 87, 115, 123, 88, 112, 120, Blenheim Street...	...	...	7	7
Altered into business premises.—124, Blenheim Street	...	...	...	1	2
Satisfactory alterations made.—67, 72, Blenheim Street	...	...	...	2	3
Alterations made, but not satisfactory.—118, Blenheim Street	...	...	...	1	1
				106	146

The following premises, in connection with which proceedings were begun in previous years, have been finally dealt with as follows:—

Condercum Square.—Put into habitable repair.
Robson's Court, Pilgrim Street do.
Clayton Court do. do.
35, Blandford Street do.
13, Carliol Street.—Damp room not now used as dwelling.

HOUSES BUILT DURING THE YEAR 1909.

The following return of houses built during the year under report is supplied through the courtesy of the City Engineer:—

Newcastle-upon-Tyne.	Houses Self-contained.	Houses of Two Flats each.
Benwell	20	51
Fenham	32	—
Elswick Township	21	6
Westgate Township	—	—
Byker Township ...	—	9
Jesmond Township	50	6
Heaton Township ...	38	21
St. Andrew's Parish	—	—
St. John's Parish ...	—	—
St. Nicholas' Parish	—	—
All Saints' Parish	—	—
Walker	80	23
	241	116

(for 232 families.)

New accommodation has thus been provided for 473 families, or at the rate of 5 persons to a family, 2,365 persons, as compared with accommodation estimated for 3,090 persons provided during 1908.

SANITARY ALTERATIONS.

16 plans for minor sanitary works have been examined and approved or otherwise by the Medical Officer of Health, and forwarded to the City Engineer for his consideration, as compared with 11 during the previous year.

HENRY E. ARMSTRONG, D.Hy.,

Medical Officer of Health.

*Health Department,
Town Hall,
Newcastle-upon-Tyne,
10th May, 1910.*

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE, 1909.

APPENDIX A.

TABLE I.

POPULATION (ESTIMATED BY THE REGISTRAR-GENERAL TO THE MIDDLE OF THE YEAR), 281,285.

Registration Sub-districts and City.	Different Quarters of the Year.	Births Registered in 52 Weeks ended 1st January, 1910.			Deaths Registered in 52 Weeks ended 1st January, 1910.		
		Male.	Female.	Total.	Male.	Female.	Total.
Benwell	1st Quarter ...	122	105	227	45	39	84
	2nd „ ...	104	113	217	46	51	97
	3rd „ ...	120	118	238	34	31	65
	4th „ ...	114	110	224	35	41	76
	Total ...	460	446	906	160	162	322
Elswick	1st Quarter ...	207	187	394	145	137	282
	2nd „ ...	201	193	394	147	133	280
	3rd „ ...	218	164	382	135	112	247
	4th „ ...	179	194	373	150	151	301
	Total ...	805	738	1,543	577	533	1,110
St. Nicholas' ...	1st Quarter ...	144	119	263	75	55	130
	2nd „ ...	132	126	258	54	60	114
	3rd „ ...	118	109	227	60	47	107
	4th „ ...	106	118	224	48	43	91
	Total ...	500	472	972	237	205	442
St. Andrew's ...	1st Quarter ...	97	81	178	162	133	295
	2nd „ ...	94	94	188	148	116	264
	3rd „ ...	94	110	204	132	104	236
	4th „ ...	80	103	183	127	125	252
	Total ...	365	388	753	569	478	1,047
All Saints' ...	1st Quarter ...	105	125	230	48	62	110
	2nd „ ...	119	128	247	44	46	90
	3rd „ ...	117	126	243	50	34	84
	4th „ ...	114	115	229	49	54	103
	Total ...	455	494	949	191	196	387
Byker	1st Quarter ...	294	257	551	160	129	289
	2nd „ ...	279	273	552	109	91	200
	3rd „ ...	239	275	514	81	87	168
	4th „ ...	225	218	443	96	81	177
	Total ...	1,037	1,023	2,060	446	388	834
Walker	1st Quarter ...	77	60	137	48	33	81
	2nd „ ...	71	71	142	46	36	82
	3rd „ ...	46	57	103	38	41	79
	4th „ ...	64	53	117	41	34	75
	Total ...	258	241	499	173	144	317
City	1st Quarter ...	1,046	934	1,980	683	588	1,271
	2nd „ ...	1,000	998	1,998	594	533	1,127
	3rd „ ...	952	959	1,911	530	456	986
	4th „ ...	882	911	1,793	546	529	1,075
	Total ...	3,880	3,802	7,682	2,353	2,106	4,459

The Births represent a rate of 27·3, and the Deaths a rate of 15·9 per 1,000 estimated population.
The increase of Births over Deaths is 3,223 this year, as compared with 3,581 in 1908,

TABLE II.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	CITY.	Benwell.	Elswick.†	St. Nicholas'.	St. Andrew's.†	All Saints'.	Byker.	Walker.*
Measles	112	9	35	12	9	17	19	11
Scarlet Fever	34	..	1	..	..	1	3	29
Epidemic Influenza	25	8	9	1	4	..	2	1
Whooping Cough	70	8	10	3	2	7	24	16
Diphtheria and Membranous Croup	58	1	6	2	5	1	10	33
Enteric Fever	19	..	2	..	2	..	2	13
Diarrhœa, Dysentery	22	..	2	1	3	4	10	2
Epidemic or Zymotic Enteritis	28	1	8	6	..	2	5	6
Epidemic Cerebro-Spinal Meningitis	¶12	1	1	1	5	..	..	4
Other Epidemic Diseases	3	..	3	..	..	..	..	..
Syphilis	8	..	1	1	3	..	2	1
Erysipelas	2	..	1	..	1	..	..	..
Pyæmia, Septicæmia	25	..	1	1	18	..	3	2
Puerperal Fever	3	..	2	..	1	..	..	..
Infective Endocarditis	3	..	1	..	2	..	..	..
Other Septic Diseases	14	1	4	1	7	1	..	..
Rheumatic Fever, Rheumatism of Heart	28	4	9	1	4	1	8	1
Tetanus	5	..	..	..	5	..	..	..
Tubercular Disease of Brain or Meninges, Acute Hydrocephalus	71	8	8	11	14	3	23	4
Laryngeal and Pulmonary Phthisis	344	24	129	33	36	28	73	21
Tabes Mesenterica, Tubercular Disease of Intestine	22	1	3	2	1	5	9	1
General Tuberculosis, Tubercular Disease of Undefined Position	17	1	1	1	4	2	5	3
Other forms of Tuberculosis, Scrofula	63	2	12	9	21	5	9	5
<i>Total Tuberculosis</i>	517	36	153	56	76	43	119	34
Other Infective Diseases	2	..	..	1	1	..	..	..
Thrush	1	..	..	..	..	..	..	1
Starvation, Want of Breast Milk	1	..	..	..	..	..	..	1
Rickets	19	1	10	1	1	3	3	..
Chronic Alcoholism	6	..	1	..	1	2	2	..
Acute Alcoholism, Delirium Tremens	2	..	..	..	2	..	..	..

¶ Deaths as registered. For verified cases see p. 20.

TABLE II.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	City.	Benwell,	Elswick.†	St. Nicholas'.	St. Andrew's‡	All Saints.'	Byker.	Walker.*
Osteo-arthritis, Rheumatoid Arthritis	2	...	1	...	1	...	...	...
Gout	1	...	...	...	...	1	...	...
Cancer	264	9	70	16	107	19	36	7
Diabetes Mellitus	26	...	7	2	12	1	3	1
Purpura Hæmorrhagica	1	...	...	...	1	...	...	...
Hæmophilia	2	...	...	...	...	...	1	1
Anæmia, Leucocythæmia	21	3	5	...	9	...	2	2
Lymphadenoma	6	...	1	...	4	...	...	1
Premature Birth	152	13	42	24	7	18	38	10
Debility at Birth	110	5	30	8	6	16	36	9
Injury at Birth	6	1	3	1	...	...	1	...
Atelectasis	5	...	...	1	1	2	...	1
Spina Bifida, Hydrocephalus	9	...	3	...	3	1	2	...
Imperforate Anus	3	...	...	...	3	...	...	...
Cleft Palate, Hare-lip	1	...	...	...	1	...	...	...
Other Congenital Defects	36	3	7	4	12	4	6	...
Old Age, Senile Decay	300	15	135	25	31	22	53	19
Inflammation of Brain or Membranes	56	4	9	1	21	...	15	6
Convulsions	135	29	13	20	12	19	33	9
Apoplexy	158	15	41	24	29	12	28	9
Softening of Brain	5	...	...	...	2	...	2	1
Hemiplegia, Brain Paralysis	32	3	10	3	4	7	5	...
Paralysis Agitans	1	...	...	...	1	...	...	...
Insanity, General Paralysis of Insane	9	...	7	...	2	...	...	...
Chorea	1	...	...	...	1	...	...	...
Epilepsy	21	1	3	3	3	2	6	3
Laryngismus Stridulus	2	...	...	1	...	...	1	...
Paraplegia, Disease of Spinal Cord	7	1	1	2	1	1	1	...
Other and Undefined Diseases of Brain or Nervous System	39	2	5	2	16	1	9	4
Otitis, Otorrhœa	9	1	1	1	4	1	1	...
Ophthalmia, Diseases of Eye	2	...	...	...	1	...	1	...
Endocarditis, Valvular Diseases of the Heart	96	5	39	11	18	5	13	5
Pericarditis	1	...	...	...	...	...	1	...
Angina Pectoris	5	2	1	1	...	...	1	...
Aneurism	4	1	...	...	1	1	1	...
Senile Gangrene	8	...	4	1	2	...	1	...
Embolism, Thrombosis	11	2	5	...	1	...	3	...

TABLE II.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	City.	Benwell.	Elswick.†	St. Nicholas'.	St. Andrew's.†	All Saints'.	Byker.	Walker.*
Phlebitis	1	...	...	...	...	...	1	...
Other and Undefined Diseases of Heart and Circulatory System	322	28	88	32	76	34	57	7
Laryngitis	4	1	1	...	1	...	1	...
Other Diseases of Larynx and Trachea	4	...	1	...	1	...	1	1
Bronchitis	307	29	79	44	35	39	64	17
Lobar, Croupous Pneumonia	46	8	9	4	9	1	11	4
Lobular, Broncho-Pneumonia	169	13	32	11	26	24	53	10
Pneumonia, form not stated	128	9	39	17	29	10	19	5
Emphysema, Asthma	34	2	5	6	7	5	9	...
Pleurisy	17	...	7	5	4	...	1	...
Other and Undefined Diseases of Respiratory System	15	...	5	...	7	...	2	1
Sore Throat, Quinsy	1	...	...	...	...	1	...	...
Diseases of Stomach	46	7	4	6	13	4	9	3
Enteritis	78	4	9	7	43	6	9	...
Cirrhosis of Liver	35	1	10	6	12	2	4	...
Obstruction of Intestine	60	2	7	1	46	1	3	...
Peritonitis	18	1	...	4	11	1	1	...
Other Diseases of Digestive System	26	3	3	2	14	2	1	1
Diseases of Lymphatic System	6	...	1	...	4	...	1	...
Acute Nephritis	88	4	22	9	30	9	10	4
Bright's Disease, Albuminuria	47	2	22	4	11	1	6	1
Calculus	3	...	...	...	1	1	1	...
Disease of Bladder and of Prostate	36	2	2	2	29	1	...	...
Other and Undefined Diseases of Urinary System	47	4	15	2	20	1	4	1
Diseases of Uterus and Appendages	7	...	1	...	6	...	...	...
Abortion, Miscarriage	4	...	...	...	2	1	...	1
Puerperal Convulsions	5	...	3	...	...	1	1	...
Placenta Prævia, Flooding	6	...	...	2	...	3	...	1
Other and Undefined Accidents of Childbirth	9	...	1	1	2	2	3	...

TABLE II.—CONTINUED.

RETURN OF CAUSES OF DEATH IN THE REGISTRATION SUB-DISTRICTS AND ENTIRE CITY DURING THE 52 WEEKS ENDED 1ST JANUARY, 1910.

CAUSE OF DEATH.	REGISTRATION SUB-DISTRICTS AND CITY.							
	CITY.	Benwell.	Elswick.†	St. Nicholas'.	St. Andrew's.‡	All Saints'.	Byker.	Walker.*
Arthritis, Ostitis, Periostitis	7	...	1	...	5	...	...	1
Other and Undefined Diseases of Organs of Locomotion	11	1	4	...	5	...	1	...
Ulcer, Bedsore	7	...	1	2	4	...	...	...
Eczema	1	...	...	...	...	...	...	1
Other and Undefined Diseases of Integumentary System	2	...	...	...	1	...	1	...
<i>Deaths from Accident or Negligence—</i>								
In Mines and Quarries	7	...	...	1	6	...	...	...
By Vehicles and Horses	20	1	2	...	17	...	...	...
On Railways	5	...	...	...	5	...	...	...
On Ships, Boats, and Docks (other than Drowning)	3	...	...	...	3	...	...	...
In Building Operations	3	...	...	...	1	1	1	...
By Machinery	3	...	...	...	3	...	...	...
By Weapons and Implements	2	...	...	...	2	...	...	...
Burns and Scalds	39	...	...	2	33	...	3	1
Drowning	12	1	2	2	...	4	1	2
Suffocation, overlaid in bed	4	2	...	...	...	1	...	1
Suffocation, otherwise	7	...	1	3	1	1	1	...
Falls	17	...	5	...	9	1	1	1
Otherwise and not stated	15	2	3	2	6	...	...	2
Homicide	2	...	...	...	2	...	...	...
Suicide	22	3	3	1	9	2	4	...
Other Ill-defined and not Specified Causes	135	7	19	25	27	12	37	8
TOTAL	4,459	322	1,110	442	1,047	387	834	317

† Includes Union Workhouse.

‡ Includes new Royal Victoria Infirmary and Fleming Memorial Hospital for Sick Children.

* Includes City Hospital for Infectious Diseases.

TABLE III.

RETURN OF DEATHS UNDER ONE YEAR OF AGE OCCURRING IN THE CITY
DURING THE 52 WEEKS ENDED 1ST JANUARY, 1910.

CAUSE OF DEATH,	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	TOTAL.
Measles	7	12	7	2	28
Scarlet Fever	3	...	...	...	3
Epidemic Influenza	1	...	...	1	2
Whooping Cough	7	11	8	7	33
Diphtheria ... ..	...	1	1	...	2
Enteric Fever ... ..	...	1	...	...	1
Diarrhœa, Dysentery ... ..	...	...	13	2	15
Epidemic or Zymotic Enteritis ... ..	...	1	17	3	21
Other Epidemic Diseases ... ..	...	3	2	1	6
Syphilis	2	1	2	3	8
Erysipelas ... ..	...	...	...	1	1
Other Septic Diseases ... ..	...	...	...	1	1
Tubercular Disease of Brain or Meninges, Acute Hydrocephalus	5	3	7	2	17
Laryngeal and Pulmonary Phthisis	1	1	...	1	3
Tabes Mesenterica, Tubercular Disease of Intestine	6	2	2	1	11
General Tuberculosis, Tubercular Dis- ease of Undefined Position	2	1	...	...	3
Other forms of Tuberculosis, Scrofula ... ..	...	1	...	...	1
<i>Total Tuberculosis</i>	14	8	9	4	35
Thrush ... ..	...	...	1	...	1
Rickets	2	1	2	1	6
Hæmophilia ... ..	...	1	...	...	1
Premature Birth	38	34	45	35	152
Debility at Birth	22	30	27	31	110
Injury at Birth	1	2	2	1	6
Atelectasis	1	...	3	1	5
Spina Bifida, Hydrocephalus	1	3	1	2	7
Imperforate Anus ... ..	...	...	2	...	2
Other Congenital Defects	6	10	11	8	35
Inflammation of Brain or Membranes	6	7	2	2	17
Convulsions	30	27	13	31	101
Epilepsy	1	...	1	...	2
Otitis, Otorrhœa	1	...	...	...	1
Ophthalmia, Diseases of the Eye	2	...	...	...	2
Bronchitis	16	20	10	45	91
Lobar, Croupous Pneumonia	1	1	1	1	4
Lobular, Broncho-Pneumonia	22	14	7	24	67
Pneumonia, form not stated	4	7	2	9	22
Other and Undefined Diseases of Res- piratory System	1	...	1	1	3
Sore Throat, Quinsy ... ..	...	...	...	1	1
Diseases of Stomach	7	6	7	1	21
Enteritis	2	3	9	9	23
Obstruction of Intestine	2	4	1	3	10
Peritonitis	1	...	...	...	1
Other Diseases of Digestive System	2	...	2	1	5
Diseases of Lymphatic System ... ..	...	...	...	1	1
Diseases of Integumentary System	1	...	...	...	1
Burns and Scalds	1	...	...	2	3
Drowning ... ..	...	1	...	...	1
Suffocation, overlaid in bed	2	...	1	1	4
Suffocation, otherwise ... ..	...	...	...	1	1
Other Accidents ... ..	...	1	...	1	2
Ill-defined and not Specified Causes	23	9	20	23	75
TOTAL	230	219	230	261	940

TABLE IV.

ANNUAL DEATH-RATE FROM ALL CAUSES AND FROM THE "CHIEF ZYMOTIC DISEASES" PER 1,000 LIVING IN NEWCASTLE, COMPARED WITH THE AVERAGE RATES IN THE LARGE TOWNS IN THE UNITED KINGDOM.

				All Causes.		"Chief Zymotic Diseases."*	
				1909.		1909.	
				Average in 76 Towns.	Rate in New-castle.	Average in 76 Towns.	Rate in New-castle.
1st Quarter	...	...	...	18·7	18·1	1·74	1·6
2nd	„	...	...	13·9	16·0	1·37	1·3
3rd	„	...	...	11·8	14·0	1·59	1·2
4th	„	...	...	14·3	15·3	0·94	0·8
Annual Rate	...	...	...	14·7	15·9	1·41	1·2

* Smallpox, Scarlet Fever, Diphtheria, Typhus, Enteric, and Continued "Fevers," Measles, Whooping Cough, and Diarrhœa, which now includes Dysentery, Epidemic and Zymotic Enteritis, and Intestinal Catarrh.

TABLE V.—AGES AT DEATH.

Periods.	REGISTRATION SUB-DISTRICTS.							
	Total in City.	Benwell.	Elswick.	St. Nicholas'.	St. Andrew's.	All Saints'.	Byker.	Walker.
Under 1 Year...	940	101	195	115	109	113	230	77
1 Year & under 5 Years	591	37	103	67	108	54	133	89
5 Years „ 20 „	336	17	56	25	118	27	58	35
20 „ „ 40 „	581	36	139	42	213	36	77	38
40 „ „ 60 „	834	42	214	74	272	59	143	30
60 „ „ 80 „	1,011	71	344	97	199	90	169	41
80 „ and upwards	166	18	59	22	28	8	24	7
Total (all ages) dying during 52 weeks ended 1st January, 1910 ...	4,459	322	1,110	442	1,047	387	834	317

APPENDIX B.



CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

TUBERCULOSIS IN DAIRY CATTLE
AND THE
COLLECTION OF SAMPLES OF MILK FOR ANALYSIS UNDER
THE FOOD AND DRUGS ACTS.

REPLY of
THE SANITARY COMMITTEE
OF THE
NEWCASTLE-UPON-TYNE CORPORATION
TO THE DEPUTATION OF THE
NORTHUMBERLAND AND DURHAM
DAIRY FARMERS' ASSOCIATION.

MAY, 1909.

NEWCASTLE-UPON-TYNE :
EASEY & BEST, PRINTERS, 142, PILGRIM STREET.

1909.

THE SANITARY COMMITTEE OF THE
NEWCASTLE-UPON-TYNE CORPORATION
AND THE
NORTHUMBERLAND AND DURHAM
DAIRY FARMERS' ASSOCIATION.

A Deputation from the above Association interviewed the Sanitary Committee on 5th April, 1909. The statements of the Deputation may be formulated under two chief heads, viz. :—

A.—TUBERCULOSIS OF DAIRY COWS.

1.—The Association agree that the officer of the Corporation may clinically examine the cows on any dairy farm from which milk sold in Newcastle is found to contain the Bacilli of Tuberculosis; and that such officer may take for examination a sample of the milk of any individual cow on such farm.

2.—The Association agree to eliminate from their herds any cow found to have a tuberculous udder.

3.—They desire that at all visits of the officer of the Corporation their own Veterinary Surgeon shall be present.

4.—They object to the testing of their cows with Tuberculin. They hold the view that medical and veterinary science is not unanimous as to the value of the Tuberculin test. They themselves consider the test unreliable for the following reasons, viz. :—(a) that re-acting animals after slaughter have been examined and no visible Tubercle has been found in them; (b) that in a herd of 20 cows tested, so many as 19 have re-acted to the test; and that a bull after re-acting lived three years, and on slaughter was found to be “quite healthy.”

5.—They suggest that their milk may be affected with germs of Tuberculosis after leaving their farms.

6.—Whilst wishing to eradicate Tuberculosis from their stock, they ask that the Corporation will defer all action with regard to the before-named matters until the Bill now being promoted by the President of the Local Government Board has become law.

B.—SAMPLES OF MILK TAKEN FOR ANALYSIS.

1.—The Association desire the Corporation to join them in investigating the merits of each case of a sample of milk found on analysis to contain less than the minimum proportion of fat and solids allowed by law ; and not to take the case before the Magistrates until the Joint Committee have made such investigations.

2.—They say the farmers have to meet the demands of their customers for breakfast and tea by milking their cows at 4 o'clock in the morning and 2 o'clock in the afternoon, and contend that as the morning's milk is thus made weaker than that sold in the afternoon, it is unfair that action should be taken on a sample of the morning's milk only. They consider that any decision on the question of adulteration should be based on the average of the morning and afternoon milks.

With respect to the foregoing observations of the North-umberland and Durham Dairy Farmers' Association, the Sanitary Committee feel deeply impressed with the national and vital importance of the two subjects brought before them, viz. :—the protection from infection, and the maintenance of the quality, of the public milk supply, and gladly avail themselves of the opportunity afforded to express their views on the matters in question by making the following replies, which are arranged in numerical order corresponding with the statements of the Deputation.

A.—TUBERCULOSIS OF DAIRY COWS.

1.—The Corporation have power, under the Dairies, Cow-sheds, and Milkshops Order, 1899, to make a general veterinary examination of all dairy cows in the City. This power is too limited in its application. The Committee are glad to receive

from the Dairy Farmers' Association their expression of approval of the extension of this principle to country dairy farms sending milk for sale in Newcastle. The proposal to take further samples from individual cows, whose mixed yield has already been found to be tuberculous, is open to the objection that it necessitates a loss of six weeks' time for the purpose of making further bacterial tests, thus causing (after the purchase of the sample previously found infected) a total period of three months' delay, during the latter half of which the customers of the particular dairy would, to the knowledge of the Sanitary Authority, be continuing to consume tuberculous milk. The proposal of the Association cannot therefore be accepted by the Committee. Apart from the danger to the public from this delay, the Committee think they cannot reasonably be expected to repeat the long process of bacterially testing the milk of a large herd—and not only that, but of every cow in it—whose mixed supply has already been proved to be diseased.

2.—It is absolutely necessary that *any* cow found by the Veterinary Inspector to shew physical signs of Tuberculosis, whether of the udder or elsewhere, shall forthwith be removed from the herd, and that her milk shall not be used for the food of man. The cowhouse must also be thoroughly disinfected after the removal of the diseased animal. These measures are systematically practised in Newcastle, and in the opinion of the Committee should be adopted, not in the North of England only, but generally throughout the United Kingdom.

3.—The proposal that the Veterinary Surgeon of the farmer should be present at any examination of cows by the officers of the Corporation meets with the approval of the Committee, who have instructed their officers to arrange accordingly wherever practicable.

4.—The Sanitary Committee feel that the doubts expressed by the Deputation as to the reliability of Tuberculin as a test for Tuberculosis are due to misapprehension of the facts of the case. The Deputation appear to regard the test as having failed because a re-actor lived for several years after the application of the test, and because visible "grapes" or tubercles were not seen on post-mortem examination of a re-acting animal. These ideas are erroneous, for the following reasons:—The assumed

absence of tuberculous deposits may have been due (1) to incompleteness of the examination from want of experience on the part of the examiner; (2) to difficulty in recognising the signs of the disease in its early stages; (3) to the absence of anything characteristic to be seen by the naked eye, owing to the circumstance that the Bacilli of Tuberculosis are present and propagating in the system of the animal for some time before any visible sign of change in the tissues takes place; and (4) to the recovery of the affected animal from the disease. These facts are indisputable. The test is implicitly and universally accepted by medical and veterinary authorities as the only known means of finding out every animal affected with Tuberculosis in a herd. The result of the test is obtained with certainty in forty-eight hours. To rest satisfied with the rejection of cows whose udders are tuberculous, or which present any physical signs of the disease in an advanced form, implies neglect of other cattle which may be affected in an earlier stage; and, for the farmer, is merely to court the risk of having his milk supply *again* condemned at a later date.

To test with Tuberculin the individual cows of a dairy, the mixed supply of which has been found tuberculous, with the object of eliminating every re-acting animal therefrom, appears to the Committee to be the only effectual course, short of stopping altogether the sale of the supply from that dairy. The adoption of the test will prevent the suspension of the sale of the whole of an infected mixed milk supply, which would be necessary during the six weeks whilst the yield of the individual cows was being examined.

The absence of tubercle (which is a sign of *the disease Tuberculosis* at its second or visible stage) can only be affirmed or denied after minute dissection and inspection of the glands of the carcase. Further, the *actual* absence of tubercle from the carcase is no proof of the absence of the bacilli of the disease. The Tuberculin test applied to the cow herself is both quicker in action, more direct, more reliable, and more certain in positive result, than that of the inoculation of her product into a guinea-pig. Whilst fully sympathising with dairy-farmers in the difficulty of the question before them for solution, the Committee earnestly desire to point out the very great importance of the

employment of the Tuberculin test, and to urge the trade, in their own interests, to accept it as the only means of recognising Tuberculosis at an early stage, and thereby enabling them to secure the prompt extirpation of the disease from their herds.

5.—As to the suggestion that the presence of the bacilli of Tuberculosis in a sample of milk taken during delivery may have been due to infection after the milk had left the farm, and not to the cow yielding it—it may be said that the chance of such a mode of infection is very remote, and practically negligible. In the highly improbable contingency, however, of such contamination occurring, the application of the Tuberculin test would at once clear the cows, if healthy, and reduce the inquiry to the sole point of distribution.

6.—The Committee, being without the means of ascertaining the scope of the proposed Tuberculosis Bill of the Local Government Board, or the date at which it may possibly become law, and having regard to the interests of the public health, feel unable to comply with the request of the Deputation to defer action until these matters are finally embodied in a general Act of Parliament.

B.—SAMPLES OF MILK TAKEN FOR ANALYSIS.

1.—In reply to the proposal to form a Joint Committee of investigation into cases of milk found to contain less than the minimum amount of solids allowed by law, the Committee desire to draw the attention of the Association to the appended copy of a Report (dated 4th August, 1905) made by the Medical Officer of Health for Newcastle, and adopted by the Committee, on a somewhat similar suggestion contained in a circular dated 28th December, 1901, and a letter dated 27th March, 1905, each from the Board of Agriculture and Fisheries. The facts of the matter stand now as they did then, and the opinion of the Committee thereon remains as before.

The proposal that the Committee should hold a joint investigation along with the Dairy Farmers' Association to decide whether legal proceedings should be taken against a member of the Association, one of the principal activities of which is the defending of such cases when they are taken to Court, is one to which the Committee are quite unable to agree.

2.—With respect to the suggestion that the morning's milk is an unfair criterion of a farmer's average produce, being, through the requirements of consumers, of poorer quality than the afternoon's supply, and the proposal that no prosecution should be instituted on the evidence of the morning's yield only, the Committee have to point out that the present law limits were fixed after a full consideration by the Board of Agriculture of the variation between the morning and evening meals, and took such variation into account.

The experience of the Committee indicates that the alleged difficulty of getting morning's milk of the required quality, is not well founded on fact.

Customers who pay the same price for morning and afternoon milks are entitled at each delivery to (at least) the lowest degree of quality allowed by law.

The proposal to make the taking of proceedings dependent on the average of two different supplies, is also open to the objection that the fact of a morning sample having been collected would of course be reported to the dairyman, who, if unscrupulous, might specially enrich the afternoon supply in order to raise the average for the day.

Samples for analysis are chiefly obtained (directly or indirectly) from middlemen who are not producers, but are usually purchasers from farmers on warranty as to quality. A farmer who gives such warranty does so with a full knowledge of his responsibility and his ability to meet it, and is fully protected in every case where he can shew that he had reason to believe that the statements contained in his warranty were true.

(Signed) HENRY W. NEWTON,

Chairman.

Town Hall,

Newcastle-upon-Tyne,

May 17th, 1909.

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE.

SALE OF FOOD AND DRUGS ACTS.

MILK ANALYSIS.

REPORT TO THE SANITARY COMMITTEE
ON THE
CIRCULAR OF THE BOARD OF AGRICULTURE
TO
LOCAL AUTHORITIES,
DATED 28TH DECEMBER, 1901, AND ON
THE BOARD'S LETTER OF 27TH MARCH, 1905.
BY THE
MEDICAL OFFICER OF HEALTH.

SUMMARY.

1. Examination of Board of Agriculture's proposal to Local Authorities as to vendor's explanation of his low-standard milk.
2. Difficulty of carrying out recommendation of Board of Agriculture as to taking of successive samples. Effect of this recommendation on the Bench and on the Farmer.
3. Explanation as to reason of poor quality of his milk by farmer (whether guilty or innocent), unreliable and unsatisfactory. "Appeal to the cow" an unfair tax on the ratepayer.
4. Farmer's explanation best made to Magistrates.
5. Farmer's proper responsibility and power of self-protection.
6. Board of Agriculture's recommendation to let farmer *explain* to Sanitary Authority is an innovation and contrary to invariable rule with other tradesmen.
7. Farmer's *duty* the same as that of other tradesmen.
8. Board of Agriculture's recommendation with respect to milk testing and examination, and probable results of attempt to carry it into effect.
9. Method of milk testing suggested by Board of Agriculture not likely to be fairly tried by farmer. Farmer should test for himself.
10. Milk standard already fixed so low as to be easily attainable, hence farmer has no claim for special privilege.
11. Low milk standard benefits only a few low-class farmers, whilst it injures all others, as well as all consumers.
12. Criticism of present low milk standard.
13. The duty of Sanitary Authorities is to protect the helpless consumer, not the producer, who has ample lawful means and methods of promoting his own interests.
14. Higher milk standard desirable. Every person *found selling* milk below fixed standard should be prosecuted.

1. "The Board . . . have received numerous representations, from dairy farmers and others complaining, etc., etc., . . . in the absence of any special circumstances indicating the commission of fraud, the Local Authority might, in the first instance, call the attention of the vendor to the adverse report of the analyst, and afford him an opportunity of submitting any explanation he might desire to offer on the subject."

The latter paragraph of the above quotation consists of two parts, viz.:—

- (1) "The absence of any special circumstances indicating the commission of fraud."
- (2) The Local Authority to "call the attention of the vendor . . . and afford him an opportunity of submitting any explanation, etc."

With respect to the first of these parts, it may be observed that this point can only be determined after hearing the evidence on both sides. The vendor's disclaimer of fraud is not proof of his innocence, and his admission of guilt is not to be expected.

The circumstances bearing on the quality of a given milk supply are so complex, and the opportunities of plausible excuse for its poorness so many and varied, as, in most cases, to deprive a Local Authority of the means of determining the truth or falsity of any explanation offered.

As regards the second part of the paragraph, the attention of the vendor will be called to the circumstance by the summons, after the service of which, and before the hearing of the case in Court, he may submit his explanation to the Local Authority. The Local Authority of Newcastle, whilst not *inviting*, has received, and has never refused to receive and consider such explanation when offered voluntarily.

Respecting decision on such explanations, the Local Authority, being the prosecutor, is not precisely in the position of a Grand Jury, yet even the latter body decides on the *prima facie* case of the prosecution without hearing the defence. For the Local Authority to go further and constitute itself a preliminary tribunal to *invite*, inquire into, and in a certain sense, adjudicate upon, an explanation, parts of which may afterwards be used against a defendant in Court, is wrong in principle.

Moreover, inasmuch as by far the largest majority of milk vendors are merely retailers without any knowledge of the circumstances which might be considered to exculpate the producer of a milk below standard, any invitation of the kind to them would be altogether out of place.

2. “ . . . if the explanation were one which the Local Authority felt able to accept, they might, in the exercise of their discretion, refrain from the institution of proceedings, or withdraw any summons which it might have been necessary to take out in order to avoid the failure of proceedings, at the same time making arrangements for the taking of further samples of the milk supplied, in order that a satisfactory conclusion as to its character might be arrived at.”

One objection to the foregoing proposal is the difficulty (often great) of finding a particular retail vendor of milk from whom to take further samples on several successive occasions within a reasonable time after the first sample was obtained. Another objection is that it leads the Court to be disinclined to convict, except on evidence of repeated and persistent adulteration. The consequence is that it acts as a direct incentive to the fraudulent dealer (whether producer or merchant), who feels that he may adulterate with impunity until a first sample is taken by the Authority for analysis. This is his warning, and he then ceases to adulterate so that the succeeding samples afford no ground for a conviction.

3.—In attempting to shew why their milk was below standard, the same explanation would be given by the fraudulent as by the ingenuous producer, and the Sanitary Authority would be unable to distinguish the one from the other. Hence the Board's recommendation would shield both alike, and go a long way towards nullifying the protection to the public which is the primary object of the Food and Drugs Acts. If to this objection the Board urge that in every such instance there should be an “appeal to the cow,” the cost of such appeals in the producers' interest would be a heavy and unfair tax on the ratepayers, and out of proportion to the benefit they would receive from it.

4.—Any explanation the farmer might have to offer would, both for his own and the consumers' sake, be better made publicly in Court than privately before a Committee.

5.—The milk vendor, whether farmer or retailer, is as responsible as any other tradesman for the quality of the article he sells. If he has his milk periodically analysed on his own account, he needs no Inspector to tell him when it is falling below standard. Therefore, in the absence of such periodical analyses, no defence should be accepted either by Sanitary Authority or Justices.

6.—The recommendation of the Board of Agriculture is an innovation. All producers of goods, other than milk, have to protect their own interests. The Board proposes to protect those of the milk producer only.

7.—It is the farmer's *duty* to keep himself right with the law and the public. It is not the Authority's duty to do this for him. There is no reason why the farmer in this respect should be placed on a different footing from other tradesmen.

8.—After indicating that the various Agricultural Colleges and Agricultural Departments of University Colleges, etc., are willing, for a fee of sixpence, to determine the percentage of milk-fat in any sample of milk sent to them, the circular of the Board of Agriculture goes on to state that the Board would be glad if the

“Local Authority would co-operate with them in the matter, and do what is possible to facilitate the testing of milk in the manner proposed.”

The intention of this last quoted paragraph is not clear. It appears to suggest that the Local Authority should communicate with each dairy farmer and cowkeeper supplying milk to their district, and urge him to act on this recommendation of the Board of Agriculture. In the case of a district such as that of Newcastle, owing to the multiplicity of dairy farmers, the frequent variations in their number and constituency, and the immense distances from which many of them send their produce to the city, there can be no accurate register of these tradesmen. Even if obtainable, such a record, though perhaps fairly reliable to-day, would not be so to-morrow.

If the foregoing be the correct interpretation of the paragraph above quoted and what it involves, the carrying out of the Board's suggestion will be exceedingly difficult, if not well nigh impossible. Furthermore, for the Local Authority to circularise each milk

producer of the surrounding counties in the hope of reaching all the suppliers of its particular district, would, on the one hand, mean, in the majority of instances, communication with many persons not concerned, and on the other, would flood the farmers with notices from all Local Authorities within a hundred or two hundred miles of their respective dairies! Such an idea is therefore obviously out of the question.

9.—The recommendation that the farmer's milk should be frequently tested is, in itself, good; but the method suggested—apart from many other objections—is insufficient to attain its object. It is not likely that a farmer will send samples of his milk to a distant laboratory for analysis every week. To expect him to do so *every day*—and such examinations ought to be made daily—would be absurd. On the other hand, by the purchase of a Milk Tester costing a guinea, he may easily and rapidly determine for himself the amount of butter-fat whenever he chooses.

The surest way to cause dairy farmers and cowkeepers to test their produce frequently and carefully, is to prosecute in every case where milk is found to be below standard.

10.—In considering the general question, it is to be borne in mind that the limits fixed by the Sale of Milk Regulations are low, very much below the figures for average milk, and that several members of the Milk and Cream Committee were in favour of fixing higher limits. A farmer who is careful as to the breed and feeding of his cows, the intervals between successive milkings, and the regular testing of his milk, may easily keep his supply not only up to, but above the standard.

11.—A low milk-standard benefits (at the expense of their customers) a few producers only, the inferior class of whose stock or whose method of conducting business disentitles them to such special consideration. On the other hand, it hurts the main body of milk producers whose superior article brings them no higher price than is commanded by poorer stuff.

Further, it is a direct suggestion, which may be acted on to the detriment of consumers, that good milk can, without risk to the dairyman, be reduced in quality.

12.—That there must be a milk standard is a matter of course; but to fix it at barely above the poorest average quality known is—except for the serious loss it entails on the consumer—ridiculous.

13.—It is for Sanitary Authorities to protect the helpless consumer of milk rather than the resourceful producer, who may (if so disposed) keep cows of a class to produce milk naturally below standard, feed them on brewers' grains, or give them an undue amount of water to drink, and thereby actually dilute the milk before it leaves their bodies; or even add skim milk to it, and thus reduce its quality after yield; and by any or all of these processes, without breach of law or fear of penalty therefor, make as much unfair profit as the illegal adulterator.

14.—If, instead of the complicated and unusual course recommended by the Board of Agriculture, a somewhat higher milk standard were adopted and strictly adhered to, and if every person found selling milk below it were prosecuted, leaving him (in case of his being merely a middleman or retailer) to seek his own remedy against the producer who had supplied him, then the interests of milk consumers would be more thoroughly protected, the difficulties of administering the law with respect to adulteration would be greatly reduced, and justice against offenders would be more readily secured.

HENRY E. ARMSTRONG,

Medical Officer of Health.

Health Department,

Town Hall, Newcastle-upon-Tyne,

4th August, 1905.

The foregoing Report was considered, approved, and adopted by the Sanitary Committee of the Corporation of Newcastle-upon-Tyne, on 21st August, 1905.

APPENDIX C.



NEWCASTLE-UPON-TYNE AND NORTHUMBERLAND
SANATORIUM,
BARRASFORD, NORTH TYNE.

MEDICAL REPORTS

ON

NEWCASTLE CORPORATION CASES

DURING THE HALF-YEAR ENDING 26TH MAY,
AND
HALF-YEAR ENDING 26TH NOVEMBER, 1909.

Newcastle-upon-Tyne :
EASEY & BEST, PRINTERS, 142, PILGRIM STREET.

BARRASFORD SANATORIUM.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES FOR THE HALF-YEAR ENDING 26TH MAY, 1909.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress during Treatment and Remarks.
1	J. W. McP. ...	Forsyth Road, Newcastle	22 Nov., 1908	29 April, 1909	159	12 lbs.	Improved locally and generally, but much disease still present, and patient not fit for work.
2	W. H. ...	Simonside Terrace, Newcastle	25 " "	20 Feb., "	88	4 "	Improved. Patient capable of a little work.
3	T. D. ...	St. George's Terrace, Gateshead	26 " "	5 Mar., "	100	7 "	Disease still rather active, though less so than on admission.
4	Miss J. B	Lansdowne Gardens, Newcastle	26 " "	20 May, "	176	12½ "	Much improved. Well capable of light household duties.
5	Miss S. A.	Warton Terrace, Heaton	26 " "	25 Feb., "	92	10 "	Improved, but disease severe in type. Attacks of dyspnoea present on admission quite ceased under treatment. Became a private patient on 26th February, 1909.
6	Mrs. J. W.	Royal Arcade, Newcastle	26 " "	25 " "	92	8½ "	A chronic case, but much benefitted by her stay.
7	Miss J. D.	Stephen Street, Newcastle	26 " "	26 May, "	182	30 "	Great general improvement, but a tendency to feverishness persists.
8	Miss E. N. T....	Beaumont Terrace, Gosforth	26 " "	26 " "	182	7½ "	Activity of disease much less than on admission, but patient only fit to do a little sewing.
9	Miss M. R.	Sunderland Street, Newcastle	26 " "	26 " "	182	6 "	The remarks on No. 8 apply to this case too.
10	S. S. ...	Denmark Street, Newcastle	26 " "	26 " "	182	16 "	Great improvement, and with care, patient fit for light work. Has been advised to change to outdoor employment.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES DURING THE HALF YEAR ENDING 26TH MAY.—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress during Treatment, and Remarks.
11	M. L. ...	...	26 Nov., 1908	22 May, 1909	178	18 lbs.	Great improvement. Patient fit to earn his living.
12	J. T. ...	Gill Street, Newcastle	27 " "	(still in)	181	18 "	Considerable improvement. Fit for an hour's light work a day, but great care needed.
13	J. F. ...	Buckingham Street, Newcastle	27 " "	19 Feb., "	85	14 "	Great improvement. Patient left here to do insurance agency work.
14	W. U. ...	West View, Newcastle	27 " "	26 " "	92	10½ "	A chronic case, but benefitted by his stay.
15	G. M. ...	Sandhill, Newcastle	27 " "	19 April, "	144	13½ "	Activity of disease lessened by stay; patient not fit for work.
16	M. J. C.	Hugh Gardens, Newcastle	27 " "	19 Feb., "	85	6½ "	Great improvement; patient fit for work on leaving, but care necessary, as the pulmonary disease is not at all slight.
17	Miss A. J. S. ...	Shortridge Terrace, Newcastle	5 Dec. "	15 Mar., "	101	18½ "	Much improvement, but more in the general condition than in the lung itself.
18	H. D. H.	King John Street, Newcastle	10 " "	26 May, "	168	14½ "	General improvement, but a tendency to feverishness and rapid breathing persists.
19	Miss M. S.	Conyers Road, Newcastle	10 Dec., 1908	26 May, 1909	168	16 lbs.	Great improvement. Patient fit to earn her living at needlework, if given extra good ventilation.
20	A. C. ...	Ouse Street, Newcastle	10 " "	6 Feb., "	59	—	Developed the acute form of the disease and died at the Sanatorium on 6th Feb., 1909.
21	W. R. ...	Walker Road, Newcastle	16 " "	16 " "	69	19 lbs.	Great improvement. Patient left fit to earn his living.
22	T. T. ...	Scotswood Road, Newcastle	11 Feb., 1909	(still in)	105	10½ "	Much improved. Patient fit for light work, with care.
23	A. W. ...	Georges Road, Newcastle	20 " "	(still in)	96	25 "	Disease quite arrested, and with care should certainly remain so.

MEDICAL REPORTS ON NEWCASTLE CORPORATION CASES DURING THE HALF-YEAR ENDING 26TH MAY,—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress during Treatment, and Remarks.
24	F. G. T. ...	Nichol Street, Newcastle	23 Feb., 1909	(still in)	93	29 lbs.	Improvement both as regards lungs and throat, as well as great general improvement. Not fit for work.
25	J. I. ...	Clayton Park Square, Newcastle	13 Mar., "	(still in)	75	14 "	Some improvement, more particularly in his general condition.
26	V. C. E. ...	Simonside Terrace, Newcastle	13 " "	(still in)	75	5 "	Considerable improvement.
27	Miss J. N. S....	Summerhill Terrace, Newcastle	6 " "	(still in)	82	14½ "	Improvement in general condition, but this case looks as though a long period of treatment would be required.
28	A. Y. ...	Stratford Grove West, Newcastle	10 " "	(still in)	78	14 "	Improvement in condition of lungs and throat, and much general improvement. Should be well fit for light work on discharge.
29	J. L. ...	Dibley Street, Newcastle	17 " "	(still in)	71	24½ "	Great improvement, but there is a rather long history of the disease.
30	E. S. ...	Rosedale Terrace, Newcastle	13 " "	(still in)	75	12 "	Much improvement, and should be able to earn his living on discharge.
31	R. M. ...	Ellesmere Road, Newcastle	22 April, "	(still in)	35	8½ "	Both these cases have improved in the short time since their admission.
32	Miss N. B. ...	Welbeck Road, Newcastle	1 May, "	(still in)	26	3½ "	
33	W. R. ...	Cardigan Terrace, Newcastle	21 " "	(still in)	6	—	

SUMMARY OF CASES SUBMITTED TO MEDICAL BOARD.

Applications received	...	...	...	...	68
Passed and admitted as above	33
Passed and awaiting admission	7
Rejected	24
Withdrawn	4
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BARRASFORD SANATORIUM.

MEDICAL REPORT ON NEWCASTLE CORPORATION CASES FOR HALF-YEAR ENDING 26TH NOVEMBER, 1909.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
34	Mrs. A. C. ..	West View, Elswick	27 May, 1909	27 Aug., 1909	92	12 lbs.	Became Elswick Works patient. Progress fair; a somewhat chronic case.
35	Miss J. F. ...	Melbourne Street, Newcastle	27 ,, ,,	26 ,, ,,	91	4½ ,,	Activity of disease lessened by treatment, but patient not fit for work.
36	J. B. J. ...	Malcolm Street, Heaton	28 ,, ,,	28 Sept., ,,	123	8 ,,	Progress fairly good; patient fit for light work on discharge.
37	Miss J. C. ...	Hugh Gardens, Benwell	28 ,, ,,	14 Aug., ,,	78	(lost 2½ lbs.)	Treatment did not benefit this patient much.
38	Mrs. M. A. ...	City Hospital, Walker Gate	28 ,, ,,	25 Sept., ,,	120	26 lbs.	Very good progress; patient fit for work on discharge.
39	Mrs. M. S. ...	Spring Street, Newcastle	28 ,, ,,	18 Aug., ,,	82	19 ,,	Fairly good progress; patient stated she must leave before her time owing to illness in her family.
40	T. C. ...	Boat Houses, South Benwell	31 ,, ,,	7 ,, ,,	68	8 ,,	Progress fair; stated had to leave in consequence of private affairs.
41	A. R. ...	Wingrove Avenue, Newcastle	11 June, ,,	9 Oct., ,,	120	8½ ,,	Progress good. This patient stated on leaving that he need not return to work for a month or two, but would continue treatment for himself.
42	W. R. ...	River Street, St. Peter's	19 ,, ,,	16 ,, ,,	119	19 ,,	Good progress. Fit for light work on discharge.
43	Miss S. P. ...	Rock Street, Shieldfield	19 ,, ,,	18 Sept., ,,	91	11 ,,	General condition improved, but not the lungs. Patient not fit for work.
44	Miss J. W. ...	Moor Street, Newcastle	17 ,, ,,	1 ,, ,,	76	10½ ,,	Made good progress. Left fit for light employment.

MEDICAL REPORT ON NEWCASTLE CORPORATION CASES FOR HALF-YEAR ENDING 26TH NOVEMBER, 1909.—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
45	Miss J. D.	Penn Street, Newcastle	6 July, 1909	6 Nov., 1909	123	10 lbs.	Made good progress and is fit for light out-door employment. This case, however, has a very bad family history of the disease.
46	N. W. ...	Hamilton Street, Newcastle	14 " "	13 " "	122	24 "	Much improved as regards chest and also his swollen glands. Left to take up outdoor employment.
47	F. P. S.	Colston Street, Newcastle	17 " "	16 " "	122	15 "	Fairly good progress.
48	T. G. ...	Carville Road, Byker	22 " "	27 Sept., "	67	3½ "	Not good progress. Still feverish when he left on account of urgent private affairs.
49	Miss M. D.	Clarence Street, Newcastle	31 " "	30 Oct., "	91	(lost 1 lb.)	Activity of disease somewhat lessened by treatment, but progress poor.
50	J. F. G.	Stratford Grove West, Newcastle	9 Aug., "	(still in)	109	25 lbs	Very good progress.
51	N. M. ...	Vine Lane, Newcastle	13 " "	(still in)	105	11 "	Good progress.
52	J. McK.	Joseph Street, Elswick	21 " "	(still in)	97	35 "	Very good progress.
53	Miss L. S.	Tamworth Road, Newcastle	28 " "	8 Nov., 1909	72	3 "	Some progress made, but not very much. Left in consequence of illness in her family.
54	G. W. ...	Dunn Street, Newcastle	4 Sept., "	27 " "	84	4½ "	Very slight progress. Disease still highly active.
55	T. T. Y.	Westgate Road, Newcastle	11 " "	(still in)	76	17 "	Good progress, but this is rather an advanced case.
56	E. K. ...	Janet Street, Byker	11 " "	(still in)	76	14 "	Very good progress.
57	G. D. ...	Rosedale Terrace, Newcastle	11 " "	(still in)	76	22 "	Very good progress.
58	Miss E. M. A.	Buddle Road, Benwell	11 " "	26 Nov., "	76	13 "	Disease still active; not fit for work.
59	F. G. ...	Wolseley Road, Newcastle	20 " "	(still in)	67	14 "	Fairly good progress.

MEDICAL REPORT ON NEWCASTLE CORPORATION CASES FOR HALF-YEAR ENDING 26TH NOVEMBER, 1909.—Continued.

No.	Patient's Initials.	Address.	Date of Admission.	Date of Discharge.	Days under Treatment to Date of this Report.	Gain in Weight.	Progress under Treatment, and Remarks.
60	C. A. ...	Duke Street, Newcastle	2 Oct., 1909	26 Nov., 1909	55	5 lbs.	Patient still feverish, and disease active.
61	A. P. ...	Sidney Grove, Newcastle	27 Sept., "	20 " "	54	2 "	Transferred from private bed. Very good progress.
62	M. N. ...	Fairless Street, Newcastle	7 Oct., "	(still in)	50	6½ "	Good progress.
63	Miss M. R. ...	Hartington Street, Newcastle	6 Nov., "	(still in)	20	1½ "	Good progress so far.
64	J. S. ...	Sycamore Street, Newcastle.	13 " "	(still in)	13	nil.	Fair progress so far.

SUMMARY OF CASES SUBMITTED TO MEDICAL BOARD.

Applications received	...	...	...	...	52
Passed and admitted as above	...	...	...	...	31
Rejected	...	...	...	...	17
Withdrawn	...	...	...	...	4
					<u>52</u>

GEORGE HARE PHILIPSON, KNT., Vice-Chairman.

O. W. OGDEN, Hon. Secy.

